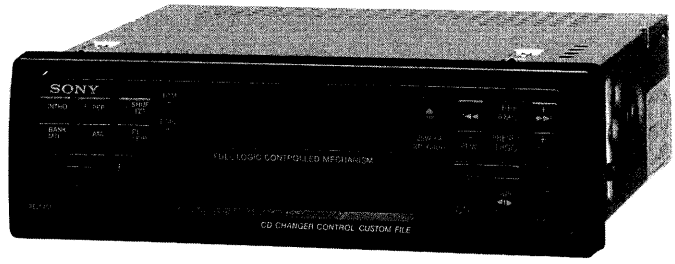
XR-C400

SERVICE MANUAL

US Model
Canadian Model



Model Name Using Similar Mechanism	XR-6700
Tape Transport Mechanism Type	MG-50EX2-39

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
12 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1% total harmonic distortion.

Other Specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	61 dB
TYPE I	64 dB	58 dB

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.5 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	30 W × 4 (at 4 ohms)

General

Outputs	Line out (1) Power antenna relay control lead Power amplifier control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 174.5 mm (7 1/2 × 2 3/8 × 6 7/8 in.) (w/h/d)
Mounting dimension	Approx. 182 × 53 × 153.5 mm (7 1/4 × 2 1/8 × 6 1/8 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents

FM/AM CASSETTE CAR STEREO

SONY®

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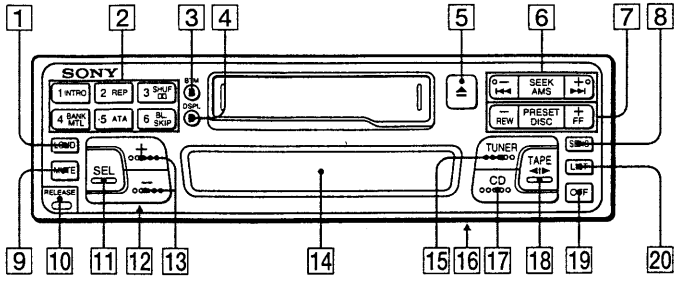
Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

Location of controls



Refer to the pages for further details.

1 LOUD (loudness) button 8

2 During radio reception:
Preset number buttons 7

During tape/CD playback:
① INTRO button 6, 9
② REPEAT button 6, 9
③ SHUF/DD (Dolby B NR) button 6, 9
④ BANK/MTL button 6, 11
⑤ ATA (Automatic Tuner Activation) button 6
⑥ BL.SKIP button 6

3 BTM (Best tuning memory function) button 7

4 DSPL (display mode change/time set) button 5, 6, 7, 8, 10

5 ⏏ (eject) button 5

6 SEEK/AMS button 6, 7, 8, 10

7 PRESET/DISC button 5, 6, 7, 8

8 SENS (sensitivity adjust) button 7, 9

9 MUTE button 8

10 RELEASE (front panel release) button 4, 12

11 SEL (control mode select) button 5, 8, 10

12 Reset button (located on the front side of the unit hidden by the front panel)
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

13 ⊕⊖ (volume/bass/treble/balance/fader control) button 5, 8, 9

14 Display window

15 TUNER (radio on/band select) button 7

16 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the installation/Connections manual.

17 CD (disc play/CD changer select) button 8

18 TAPE/◀I▶ (playback/transport direction change) button 5

19 OFF button 4, 5

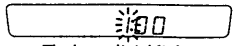
20 LIST (custom file mode select • set) button 9, 10

Setting the clock

The clock has a 12-hour digital indication.
For example, setting it to 10:08

1 Press (OFF) or (DSPL) during operation.

2 Press (DSPL) for two seconds.

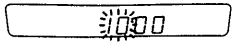


The hour digit blinks.

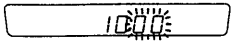
❶ **Set the hour digits.**

to go forward

to go back



❷ **Press (SEL) momentarily.**

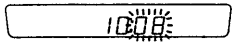


The minute digit blinks.

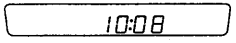
❸ **Set the minute digits.**

to go forward

to go back



3 Press (DSPL) momentarily.



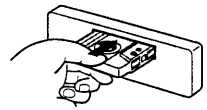
The clock activates.

Note
If the POWER SELECT switch on the bottom of the unit is set to the ❸ position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio.

Cassette Player

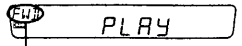
Listening to the tape

Insert the cassette.

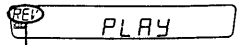


Playback will start automatically.

If the cassette is already inserted, press (TAPE) to start playback.



The side facing up is being played.



The side facing down is being played.

Tip
To change the tape transport direction, press (TAPE) during tape playback.

To	Press
Stop playback	(OFF)
Eject the cassette	⏏

Fast-winding the tape

During playback, press either side of (PRESET/DISC).

Rewind **Fast-forward**

To start playback during fast-forwarding or rewinding, press (TAPE).

This section is extracted from instruction manual.

Locating the beginning of the tracks — Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, press either side of (SEEK/AMS) momentarily.

To locate the previous tracks — To locate the succeeding the tracks

Note

The AMS function may not work when :
- *the blanks between tracks are shorter than 4 seconds*
- *there are noises*
- *there are long sections of low volume or quiet sections.*

Changing the displayed items

Each time you press (DSPL) momentarily during tape playback, the displayed item changes as follows:

Tape playback → Clock → Frequency*

* *While the ATA function is activated.*

Playing the tape in various modes

Searching the desired track — Intro scan

Press (1) during playback.
"INTRO" appears on the display.

The first 10 seconds of all the tracks are played.

When you find the desired track, press again. The unit returns to the normal playback mode.

Playing tracks repeatedly — Repeat play

Press (2) during playback.
"REP" appears on the display.

When the currently played track is over, it will be played again from the beginning.

To cancel this mode, press again.

Switching to the radio during fast-winding the tape — Automatic Tuner Activation (ATA)

Press (5) during playback.
"ATA" appears on the display.

When fast-forwarding or rewinding with (PRESET/DISC), the tuner will turn on automatically.

Skipping blanks during tape playback — Blank skip

Press (6) during playback.
"BL.SKIP" appears on the display.

Blanks longer than eight seconds will be automatically skipped during tape playback.

Playing a tape recorded in the Dolby B NR system

Press the (3) when you want to listen to a tape recorded in the Dolby* B NR system.
"DD" appears on the display.

* *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.*

Playing a CrO_2 or metal tape

Press (4) when you want to listen to a CrO_2 (TYPE II) or metal (TYPE IV) tape.
"MTL" appears on the display.

To cancel this function, press (4).

Radio

Memorizing stations automatically

— Best Tuning Memory (BTM)

This function selects from the currently received band the stations with the strongest signals and memorizes them in order of their frequency.

PREVENTING ACCIDENTS!
When tuning in during driving, use the automatic tuning and the memory preset search function instead of the manual tuning.

1 Press (TUNER) repeatedly and select the band.
Each time you press (TUNER), the band changes as follows:
FM1 → FM2 → FM3 → AM1 → AM2

2 Press (BTM) for two seconds.

Notes
- *The unit will not store stations with weak band frequencies on the preset number buttons. If there are only a few stations received, some preset number buttons will remain empty.*
- *When there is a preset number indicated on the display, the unit will store stations on all preset number buttons from the one currently displayed.*

Memorizing only the desired Stations

Up to 6 stations on each band (FM1, FM2, FM3, AM1 and AM2) can be stored on the preset number buttons in order of your choice. Therefore, 18 stations can be memorized on FM.
If you try to store another station on the same preset number button, the previously stored station will be erased.

1 Press (TUNER) repeatedly, and select the band.

2 Press (SEEK/AMS) to search for the station which you wish to store on the preset number button.

3 Press the desired preset number button ((1) to (6)) for two seconds until a beep sounds.

The number of the pressed preset number button appears on the display.

Receiving the memorized stations

1 Press (TUNER) repeatedly, and select the band.

2 Press the preset number button ((1) to (6)) momentarily on which the desired station is stored.

Tip

Press either side of (PRESET/DISC) momentarily to receive in order the stations stored in the memory (Preset Search Function).

If FM stereo reception is poor — Monaural mode

Press (SENS) momentarily until "MONO" lights up on the display.
The sound will improve, but it will become monaural. (The "ST" indication will disappear.)

Changing the displayed items

Each time you press (DSPL), the display item changes as follows:
Frequency ⟷ Clock

If you cannot tune in a preset station

Press either side of (SEEK/AMS) momentarily to search for the station (automatic tuning).
The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

Note

If the automatic tuning stops too frequently, press (SENS) momentarily until "LCL" lights up on the display (local seek mode). Only the stations with relatively strong signals can be tuned in.

Tip

If you know the frequency, press and hold either side of (SEEK/AMS) until the desired station is received (manual tuning).

Other Functions

Adjusting the sound characteristics

1 Select the item you want to adjust by pressing (SEL) repeatedly.
VOL (volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader)

2 Adjust the selected item by pressing either (+) or (−).

Adjust within three seconds after selecting. (After three seconds the button will again serve as volume control button.)

Muting the sound

Press (MUTE).
The "MUTE" indication flashes.

To restore the previous volume level, press again.

Changing the sound and display settings

Enjoying bass and treble even at Low Volume — Loudness

Bass and treble will be reinforced.

Press (LOUD).
"LOUD" will appear on the display.

To cancel, press again.

Muting the beep tone

Press (6) while pressing (SEL).
To obtain the beep tone again, press these buttons once more.

With the Optional Equipment

CD Changer

Playing a CD

Press (CD) and select the changer.
CD playback starts.

When a CD changer is connected, all the tracks play from the beginning.

Each time you press (DSPL) momentarily during CD playback, the displayed item changes as follows:

Elapsed playback time ↔ Clock

Locating a specific track — Automatic Music Sensor (AMS)

During playback, press either side of (SEEK/AMS) the number of times you wish to skip the tracks.

To locate the previous tracks — To locate the succeeding tracks

Locating a specific point in a track — Manual Search

During playback, press and hold either side of (SEEK/AMS). Release the button when you have found the desired part.

To reverse — To forward

Switching to other discs

During playback, press either side of (PRESET/DISC).

To return to the previous disc — To advance to the next disc

Scanning the tracks — Intro scan

The first 10 seconds of all the tracks on the currently selected disc are played in order. After the first disc is over, the next disc is played.

Press (1) during playback.
"INTRO" appears on the display.

When you find the desired track, press again . The unit returns to the normal CD playback mode.

Playing tracks repeatedly — Repeat play

To repeat a track

Press (2) repeatedly during CD playback until "REP 1" is displayed.

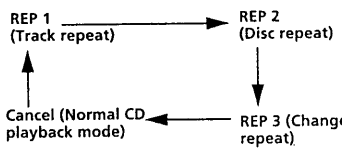
To repeat a disc

Press (2) repeatedly during CD playback until "REP 2" is displayed.

To repeat all the discs in the current changer

Press (2) repeatedly during CD playback until "REP 3" is displayed.

Each time you press (2) the display changes as follows:



Playing tracks in random order — Shuffle play

To play the tracks on the current disc in a random order

Press (3) repeatedly during CD playback until "SHUF 1" is displayed.

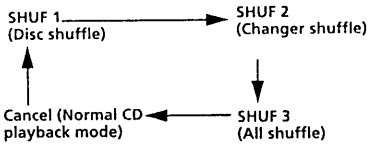
To play the tracks in the current changer in a random order

Press (3) repeatedly during CD playback until "SHUF 2" is displayed.

To play all the tracks in a random order

Press (3) repeatedly during CD playback until "SHUF 3" is displayed.

Each time you press (3) the display changes as follows:

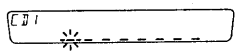


If you press (1) during shuffle play, the first 10 seconds of all tracks will be played in random order.

Labelling a CD — Disc memo (CD changer with custom file function)

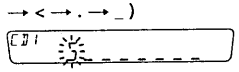
You can label each disc with a personalized title. You can enter up to eight characters per disc. If you label a CD, you can select the specific tracks for playback (page 10).

1 Play the CD and press (LIST) for two seconds.



2 Select the characters.

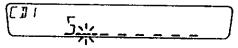
❶ Press (+) to select the desired characters.
(A → B → C → ... Z → 0 → 1 → 2 → ... → 9 → + → − → * → / → \ → > → < → . → _)



If you press (−), the characters are displayed in reverse order. If you want to put a blank space after a character, select "_" (under-bar).

continue to next page →

❷ Press (SEL) after locating the desired character.
The flashing cursor moves to the next space.



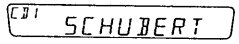
❸ Repeat steps ❶ and ❷ to enter the entire title.

3 To return to the normal CD playback mode, press (LIST) for two seconds.

To erase a title
You can erase a title by selecting eight "_"s (under-bar).

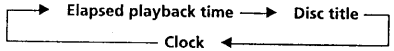
Displaying the disc memo

Press (DSPL) during CD playback.



EN

Each time you press (DSPL) during CD playback, the displayed items changes as follows:



Erasing the disc memo

1 Play the CD and press (LIST) for two seconds.

2 Press (5) while pressing (SEL).

3 Press (+) or (−) to select the title that you want to erase.

4 Press (SEL) for two seconds.
The title is erased.
Repeat step 3 and 4 if you want erase other titles.

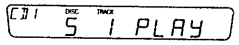
5 Press (LIST) for two seconds.
The unit returns to the normal CD playback mode.

Selecting the specific tracks for playback — Bank

(CD changer with custom file function)

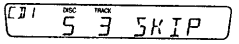
If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

1 Start playing the disc and press (LIST) for two seconds. Then press (LIST) momentarily.



Note
If you do not label the disc, you cannot use this function. For more information on "Labelling a CD", refer to page 10.

2 Press either side of (SEEK/AMS) to select the track number you want to skip and press (SEL).



The indication changes from "PLAY" to "SKIP". If you want to return to "PLAY", press (SEL) again.

3 Repeat step 2 to set the "PLAY" to "SKIP" mode on all the tracks.

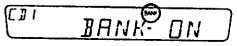
4 Press (LIST) for two seconds.
The unit returns to the normal CD playback mode.

Notes
- *You can set the "SKIP" mode on up to 24 track.*
- *You cannot set the "SKIP" mode on all the tracks.*

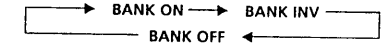
Playing the specific tracks only

You can select:
- BANK ON to play the tracks with "PLAY" setting.
- BANK INV to play the tracks with "SKIP" setting.

1 During playback, press (4).
"BANK" appears on the display.



2 Press (4) to select the desired mode.
Each time you press (4), the display changes as follows:



Playback starts from the track following the current one.

To go back to the normal playing mode, select "BANK OFF" in step 2.

EN
CD Changer

Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**

If Your Car has No Accessory Position on the Ignition Key Switch — POWER SELECT Switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear **if your car has no accessory position on the ignition key switch.** To avoid this battery wear, **set the POWER SELECT switch located on the bottom of the unit to the ❶ position, then press the reset button.** The illumination is reset to stay off while the unit is not being played.

Note

The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ❶ position.

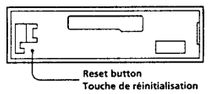
Change the position with a jeweler's screwdriver, etc.

Changer la position avec un tournevis de joaillier ou un objet similaire.

When you change the position of the switch, be sure to press the reset button after the connections are completed.

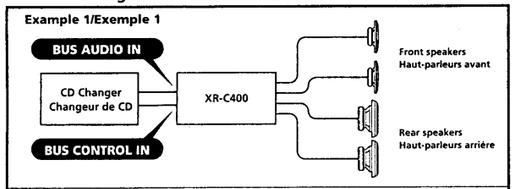
Reset Button

When the installation and connections are over, be sure to press the reset button with a ball-point pen etc.

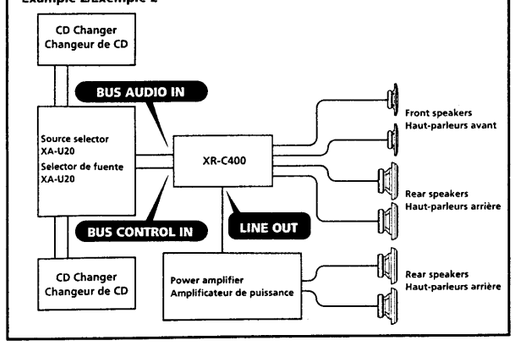


Connection Diagram

Example 1/Exemple 1



Example 2/Exemple 2



Connexions

Précautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Avant d'effectuer les connexions, débrancher la borne de terre de la batterie du véhicule pour éviter tout court-circuit.
- Brancher les fils d'entrée d'alimentation **jaune** et **rouge** seulement après avoir terminé tous les autres branchements.
- Veiller à ne pas raccorder le fil rouge d'entrée d'alimentation à la borne positive de 12 V qui est alimentée quand la clé de contact est sur la position accessoire.
- **Rassembler tous les fils de terre en un point de masse commun.**

Si l'appareil est utilisé dans une voiture dont la clé de contact n'a pas de position accessoire — Interrupteur POWER SELECT

L'éclairage du panneau avant est réglé en usine de manière à s'allumer même quand l'appareil ne fonctionne pas. Cependant, ce réglage risque d'épuiser la batterie si **l'appareil est utilisé dans une voiture dont la clé de contact ne possède pas de position accessoire.** Pour éviter d'épuiser la batterie, régler l'interrupteur **POWER sur le socle de l'appareil sur la position ❶, puis appuyer sur la touche de réinitialisation.** L'éclairage est réglé pour rester éteint quand l'appareil n'est pas utilisé.

Remarque

Quand l'interrupteur POWER SELECT est réglé sur la position ❶, l'avertisseur du panneau avant ne fonctionne pas.

Si vous changez la position de l'interrupteur, n'oubliez pas d'appuyer sur la touche de réinitialisation après avoir terminé tous les raccordements.

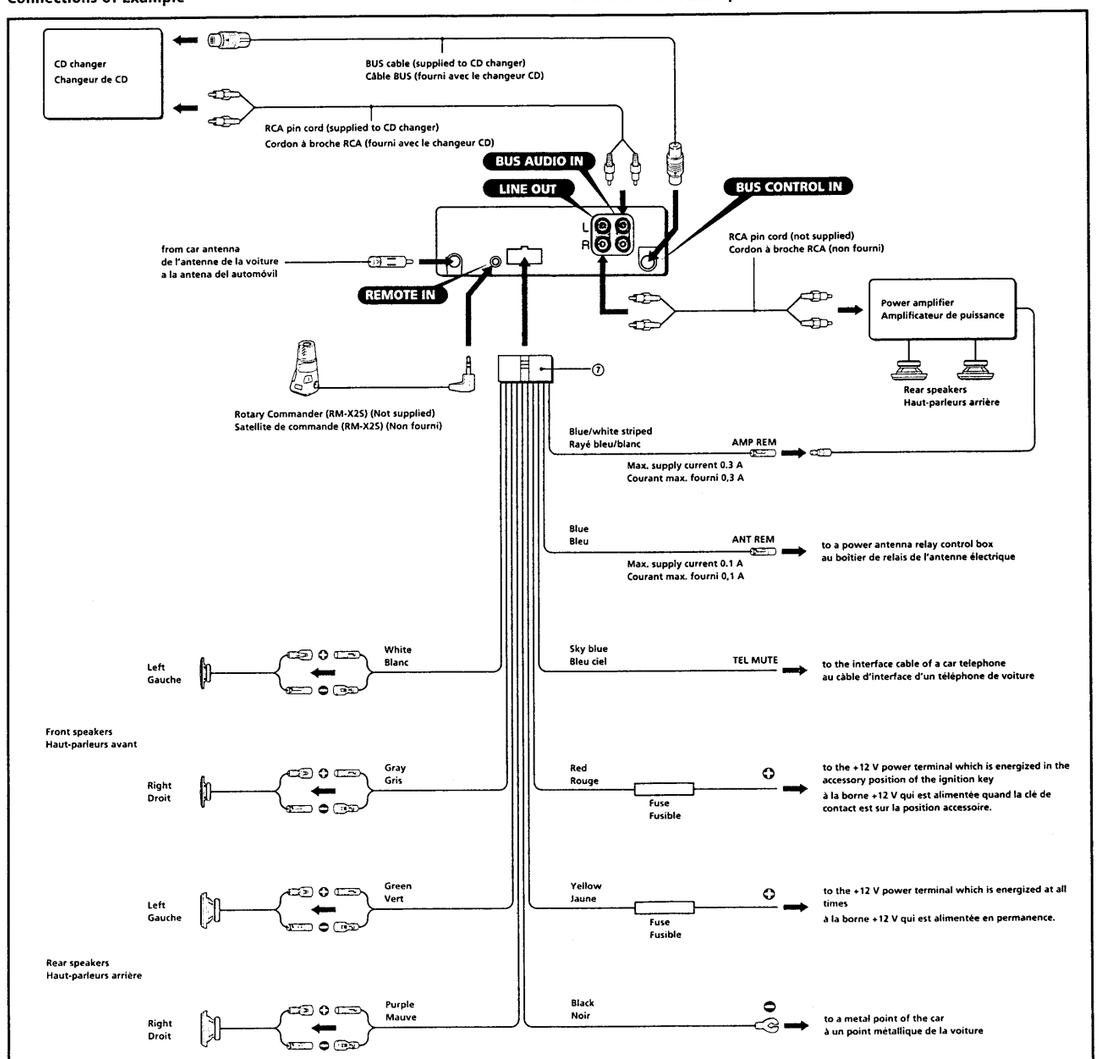
Touche de réinitialisation

Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo bille ou un objet pointu.

Schémas de connexion

Connections of Example

Connexions de l'exemple



Notes on the control leads

- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) function.*
- *A power antenna (aerial) relay box cannot be used with this unit.*

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Remarques sur les fils de contrôle

- *Le fil de contrôle de l'antenne électrique (bleu) fournit du courant continu de +12 V quand le tuner est mis sous tension ou quand la fonction ATA (Automatic Tuner Activation) est activée.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Connexion pour la conservation de la mémoire

Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

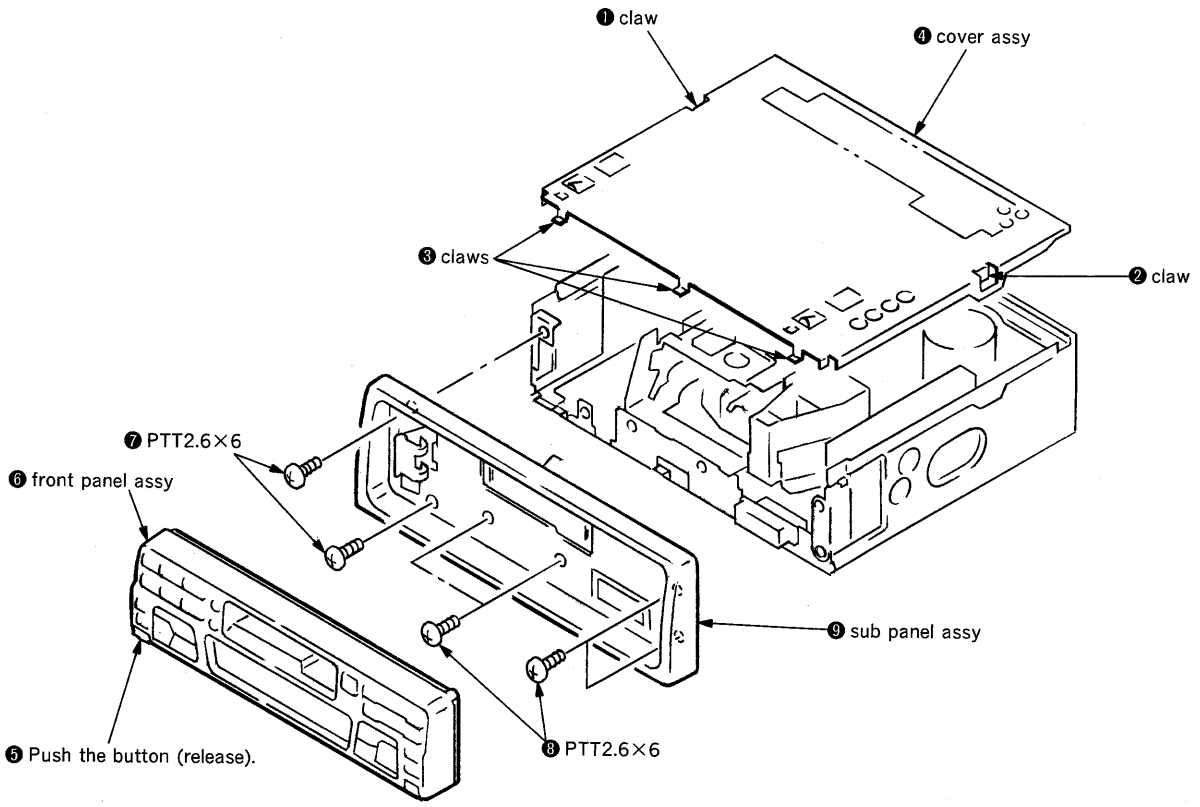
Remarques sur la connexion des haut-parleurs

- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Ne pas raccorder des haut-parleurs actifs (avec amplificateurs intégrés) aux bornes de haut-parleur de l'appareil sous peine de les endommager. Veiller à raccorder des haut-parleurs passifs à ces bornes.*

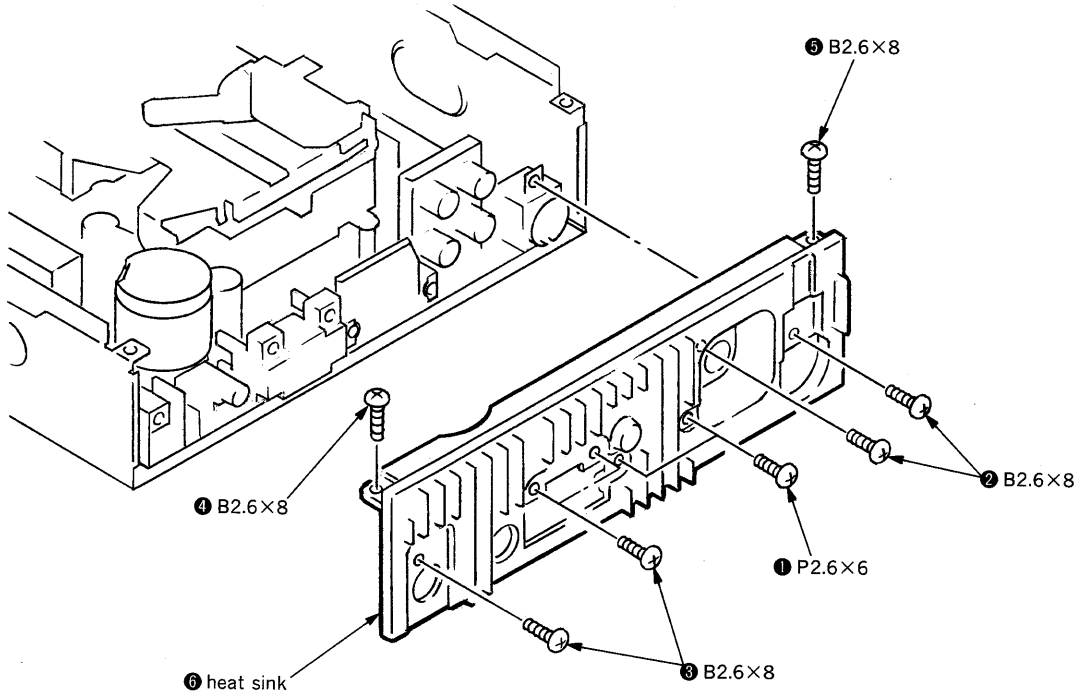
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

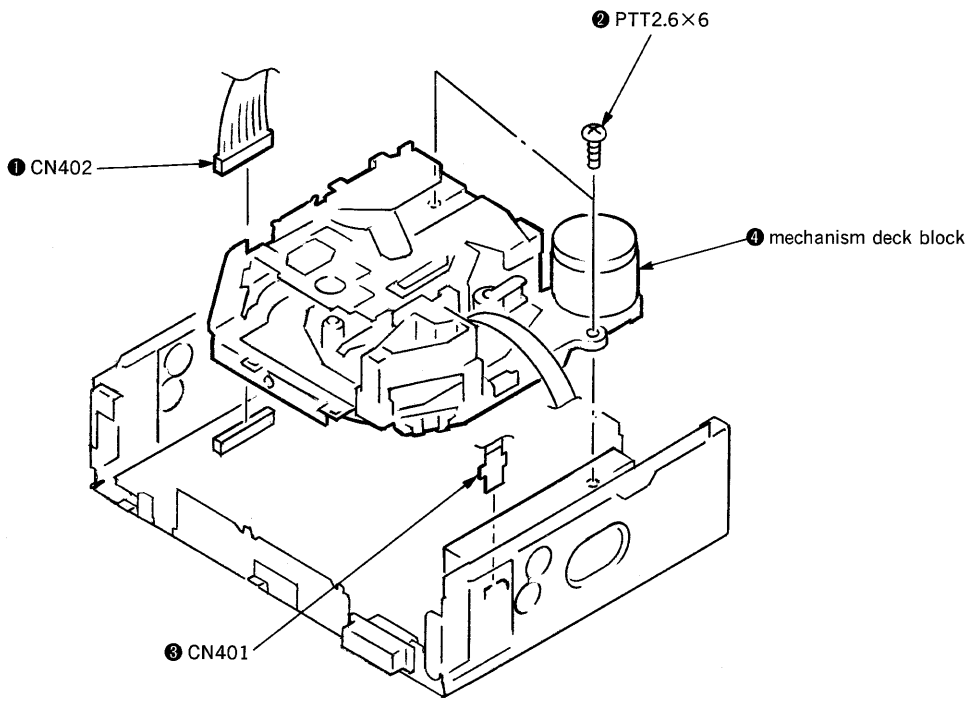
2-1. SUB PANEL ASSY



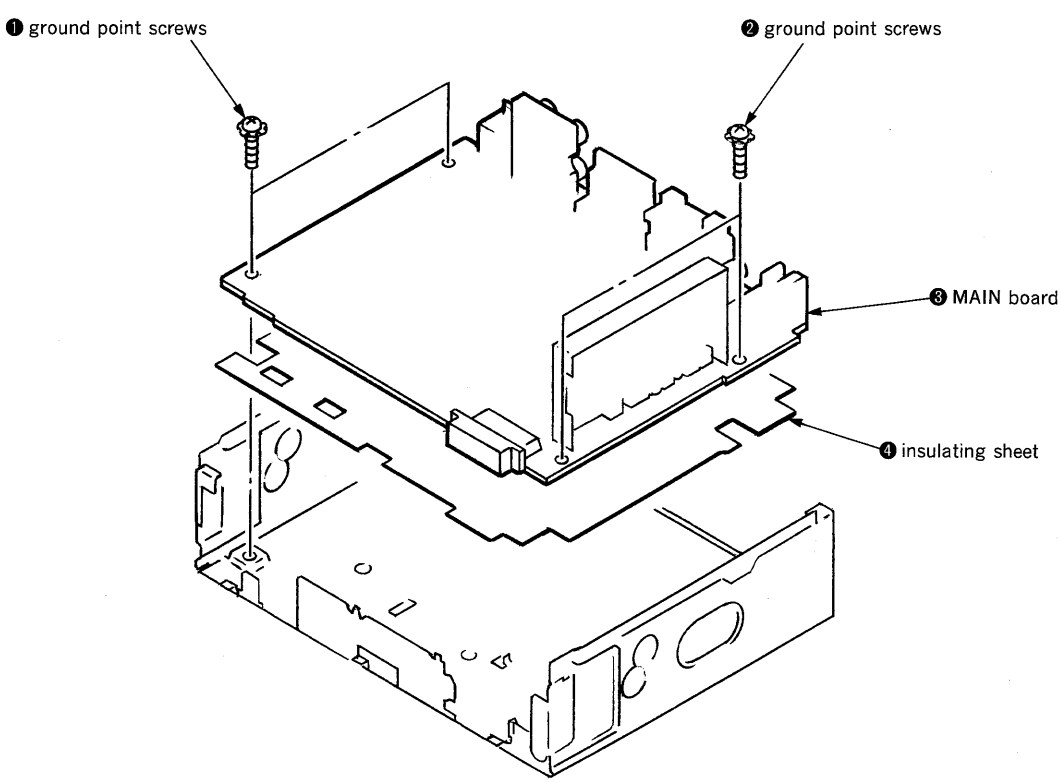
2-2. HEAT SINK



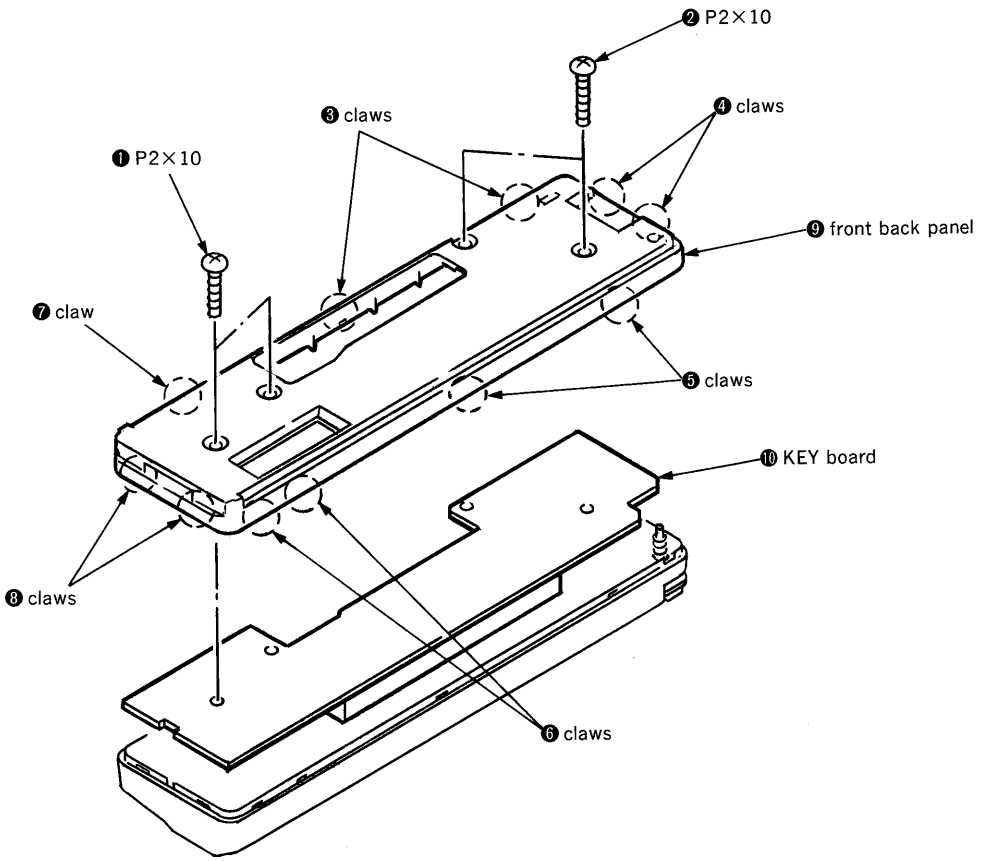
2-3. MECHANISM DECK BLOCK



2-4. MAIN BOARD



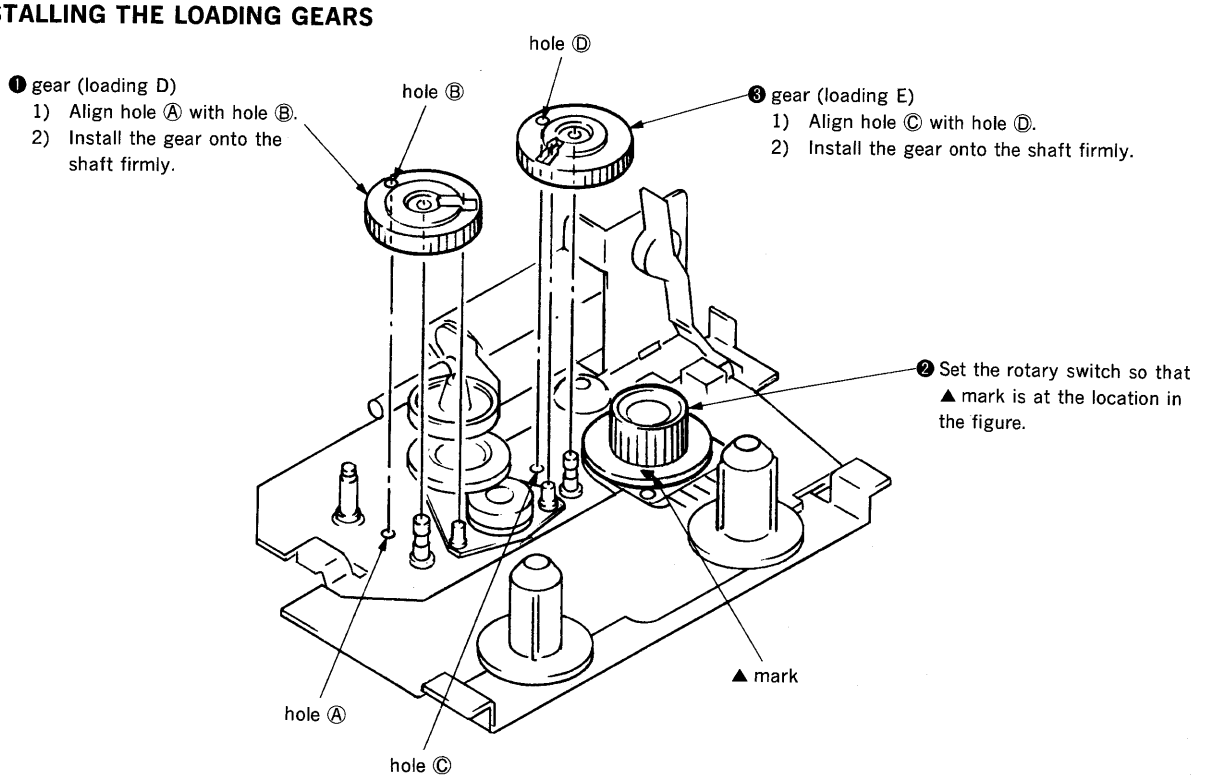
2-5. KEY BOARD


❷ P2×10
❸ claws
❹ claws
❶ P2×10
❾ front back panel
❼ claw
❺ claws
❿ KEY board
❽ claws
❻ claws

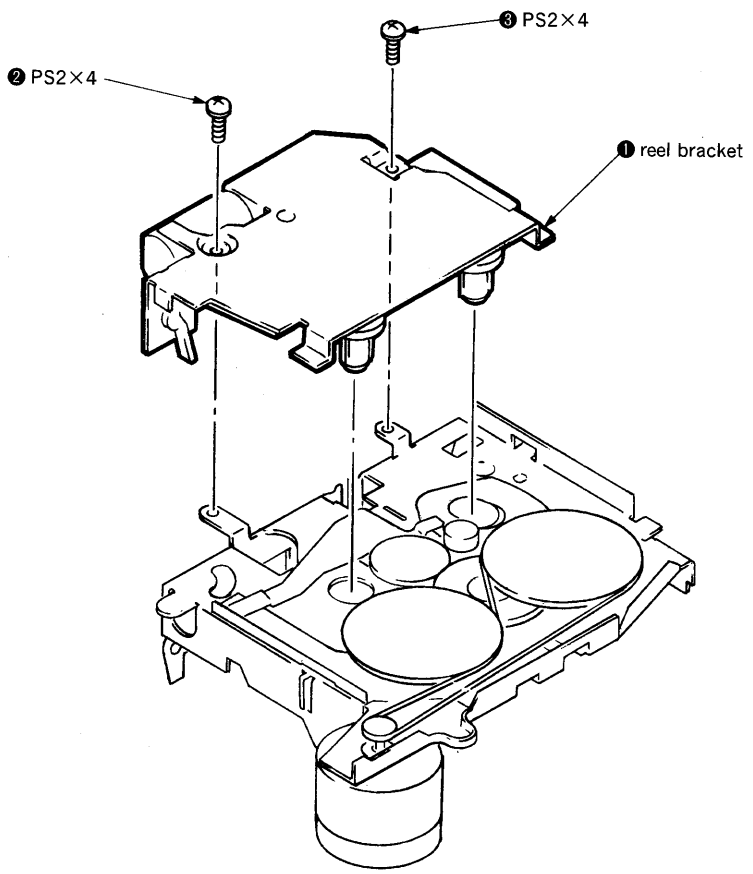
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note : Follow the assembly procedure in the numerical order given.

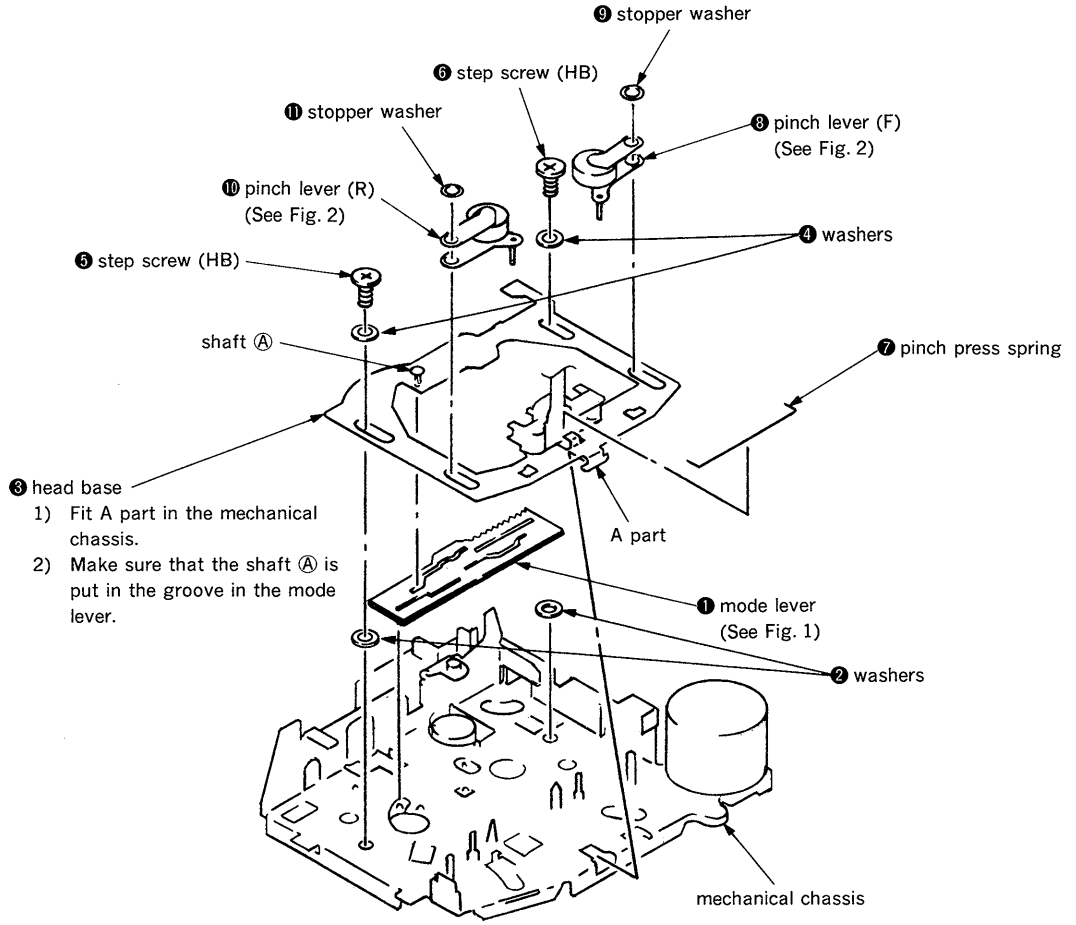
3-1. INSTALLING THE LOADING GEARS


❶ gear (loading D)
1) Align hole Ⓐ with hole Ⓑ.
2) Install the gear onto the shaft firmly.
hole Ⓑ
hole Ⓓ
❸ gear (loading E)
1) Align hole Ⓒ with hole Ⓓ.
2) Install the gear onto the shaft firmly.
❷ Set the rotary switch so that ▲ mark is at the location in the figure.
▲ mark
hole Ⓐ
hole Ⓒ

3-2. INSTALLING THE REEL BRACKET



3-3. INSTALLING THE MODE LEVER AND PINCH LEVERS



1) Align • mark on the rotary switch with hole on the mode lever.
2) Make sure that the two shafts and three projections are located as shown below.

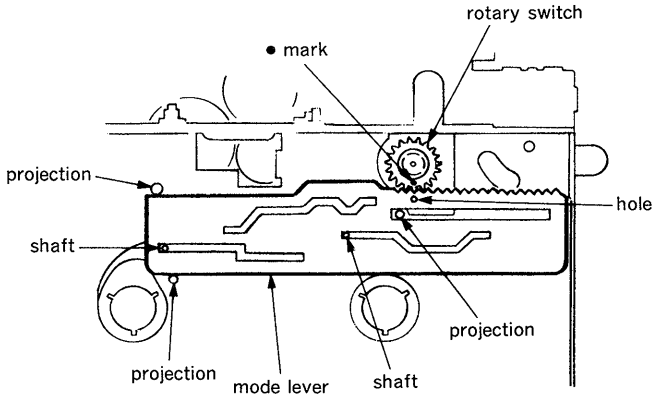


Fig. 1

1) Put the shafts of the pinch levers in the pinch press spring on its head side.

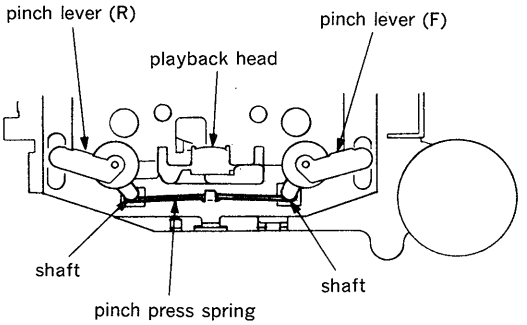
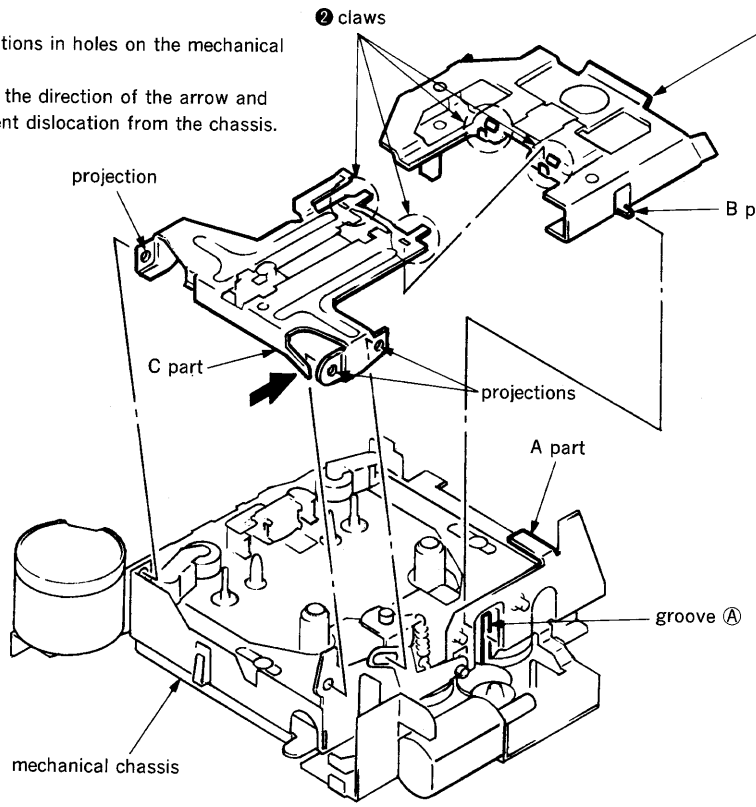


Fig. 2

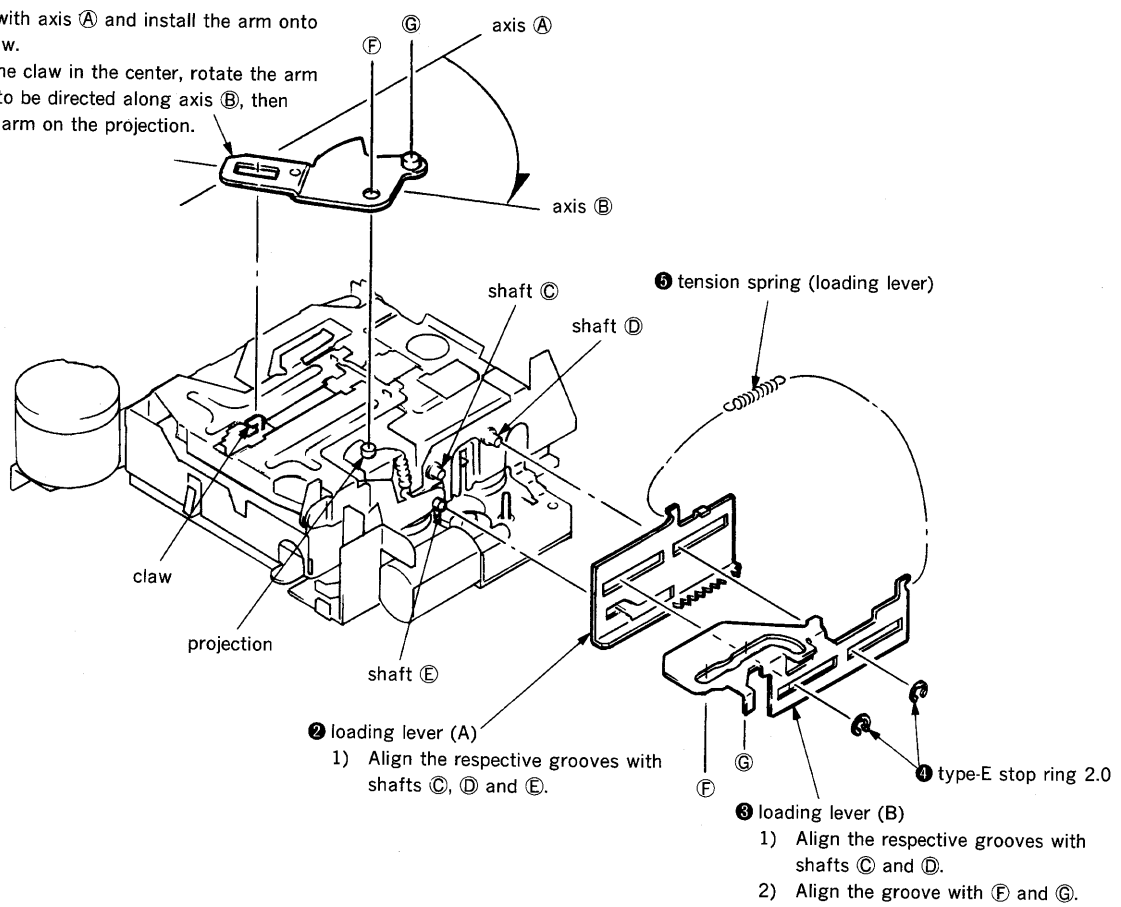
3-4. INSTALLING THE CASSETTE HOUSING

❸ housing hanger
1) Fit three projections in holes on the mechanical chassis.
2) Bend C part in the direction of the arrow and fasten to prevent dislocation from the chassis.

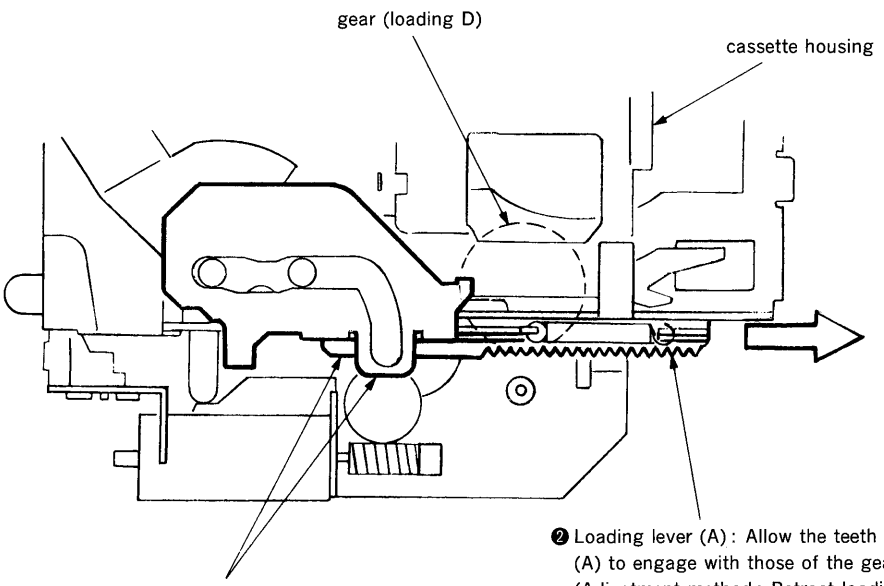


3-5. INSTALLING THE LOADING LEVER

❶ suction arm
1) Align with axis Ⓐ and install the arm onto the claw.
2) With the claw in the center, rotate the arm so as to be directed along axis Ⓑ, then fit the arm on the projection.



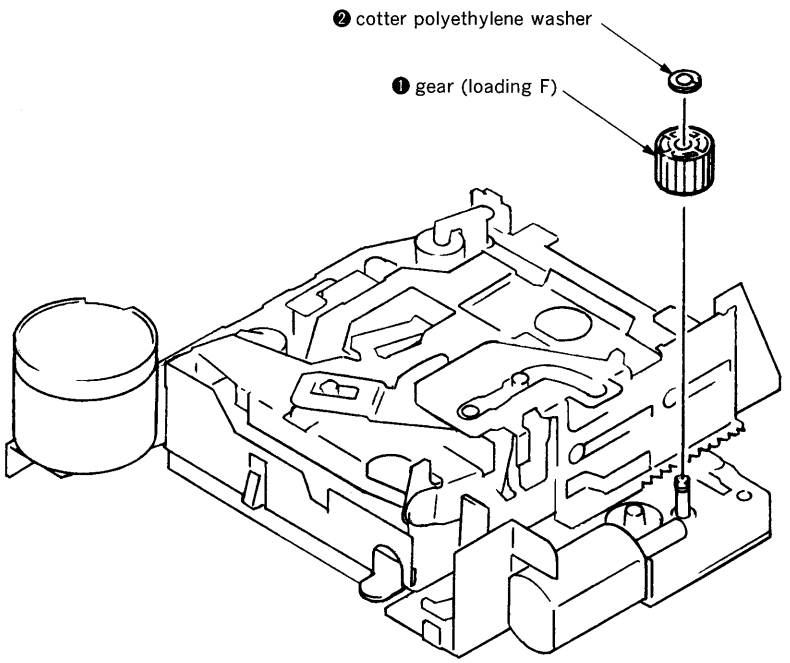
3-6. POSITIONING THE LOADING LEVERS



❶ Loading levers (A) and (B) : Move loading levers (A) and (B) in the direction of the arrow.
(The cassette housing is put down fully at this time.)

❷ Loading lever (A) : Allow the teeth of loading lever (A) to engage with those of the gear (loading D).
(Adjustment method : Retract loading lever (A) by 0.2 to 0.5mm in the opposite direction of the arrow.)

3-7. INSTALLING THE GEAR (LOADING F)



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head　　Pinch roller
   Idler　　Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	30−65g•cm (0.42−0.90 oz•inch)
FWD Back Tension		0.5−4.5g•cm (0.01−0.06 oz•inch)
REV	CQ-102RC	30−65g•cm (0.42−0.90 oz•inch)
REV Back Tension		0.5−4.5g•cm (0.01−0.06 oz•inch)
FF, REW	CQ-201B	60−200g•cm (0.83−2.78 oz•inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 90g (more than 3.18 oz)
REV	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and AM Auto Scan/Stop Level adjustments can be performed easier than it in ordinaly procedure.

〈Set the Test Mode〉

1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

〈Release the Test mode〉

1. Push the "OFF" button.

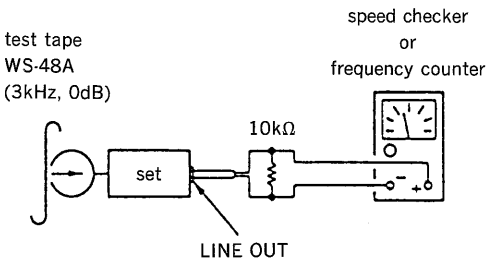
See the adjustment location from on page 19 for the adjustment.

DECK SECTION　**0dB=0.775V**

Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.



Specification: Constant speed

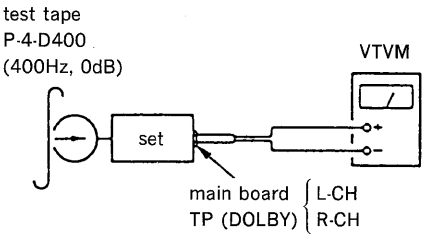
Speed checker	Frequency counter
−1.5 to +2.5%	2,955 to 3,075Hz

Adjustment Location: See page 19.

DOLBY Level Adjustment

Setting:

Preset [3] (DOLBY) button : OFF
SEL (BAS) button : Center
SEL (TRE) button : Center
SEL (BAL) button : Center
SEL (FAD) button : Center
SEL (VOL) button : Maximum



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) and RV201 (R-CH) so that VTVM reading is −6±0.5 dB (0.37 to 0.41V).

Adjustment Location: See page 19.

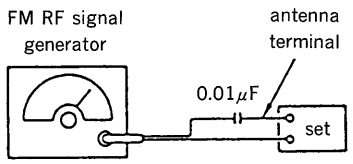
TUNER SECTION **0dB=1μV**

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

Setting :

TUNER button : FM

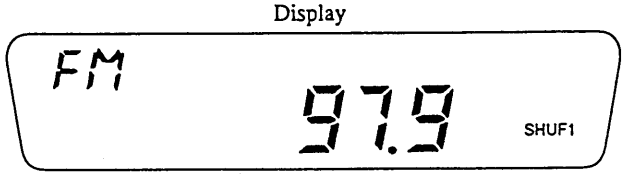


Carrier frequency : 97.9MHz
Output level : 22dB (12.6μV)
Mode : mono
Modulation : 1kHz, 75kHz deviation

Procedure :

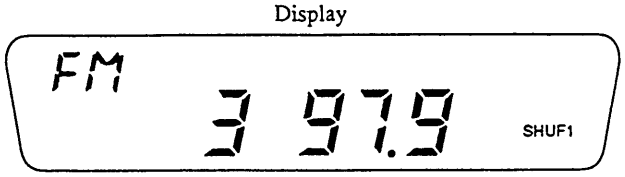
1. Set to the test mode. (See page 16.)
2. Push the [TUNER] button and set to FM.

Display



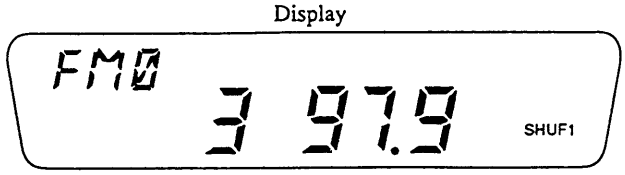
3. Push the preset [3] button.

Display



4. Adjust with the volume RV2 on TU1 so that the "FM" indication turns to "FM0" indication on the display window.
   But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

Display

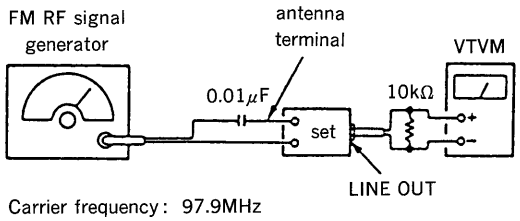


Adjustment Location : See page 19.

FM Noise Focus Adjustment

Setting :

TUNER button : FM



Carrier frequency : 97.9MHz
Output level : 60dB (1mV)
Mode : mono
Modulation : 1kHz, 75kHz deviation

Procedure :

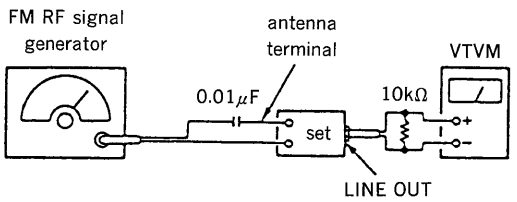
1. Tune the 97.9MHz.
2. The then output level is supposing that (A) dB.
3. Adjust with the volume RV3 on TU1 so that the output level is (A)−32dB then signal generator input set to −20dB.

Adjustment Location : See page 19.

FM Stereo Separation Adjustment

Setting :

TUNER button : FM



Carrier frequency : 97.9MHz
Output level : 70dB (3.2mV)
Mode : stereo
Modulation : main : 1kHz, 20kHz deviation (26%)
sub : 1kHz, 20kHz deviation (26%)
19kHz pilot : 7.5kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation : Ⓐ−Ⓑ
R-CH Stereo separation : Ⓒ−Ⓓ
The separations of both channels should be equal.

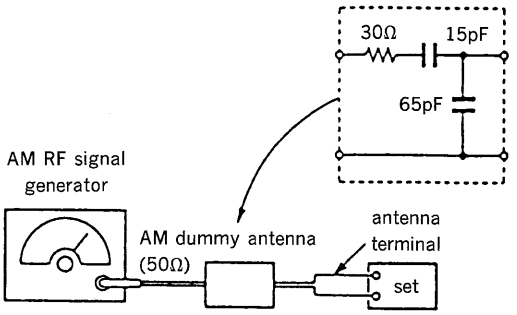
Specification : Separation more than 30dB

Adjustment Location : See page 19.

AM Auto Scan/Stop Level Adjustment

Setting :

TUNER button : AM

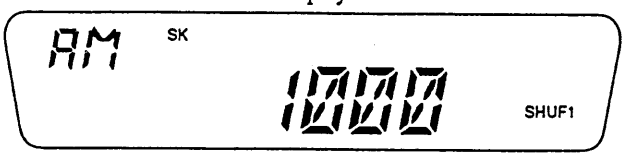


Carrier frequency : 1000kHz
30% amplitude modulation by 400Hz signal
Output level : 33dB (44.7μV)

Procedure :

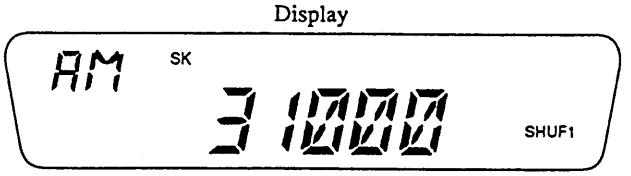
1. Set to the test mode. (See page 16.)
2. Push the [TUNER] button and set to AM.

Display



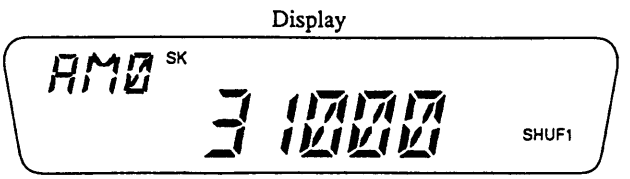
3. Push the preset [3] button.

Display



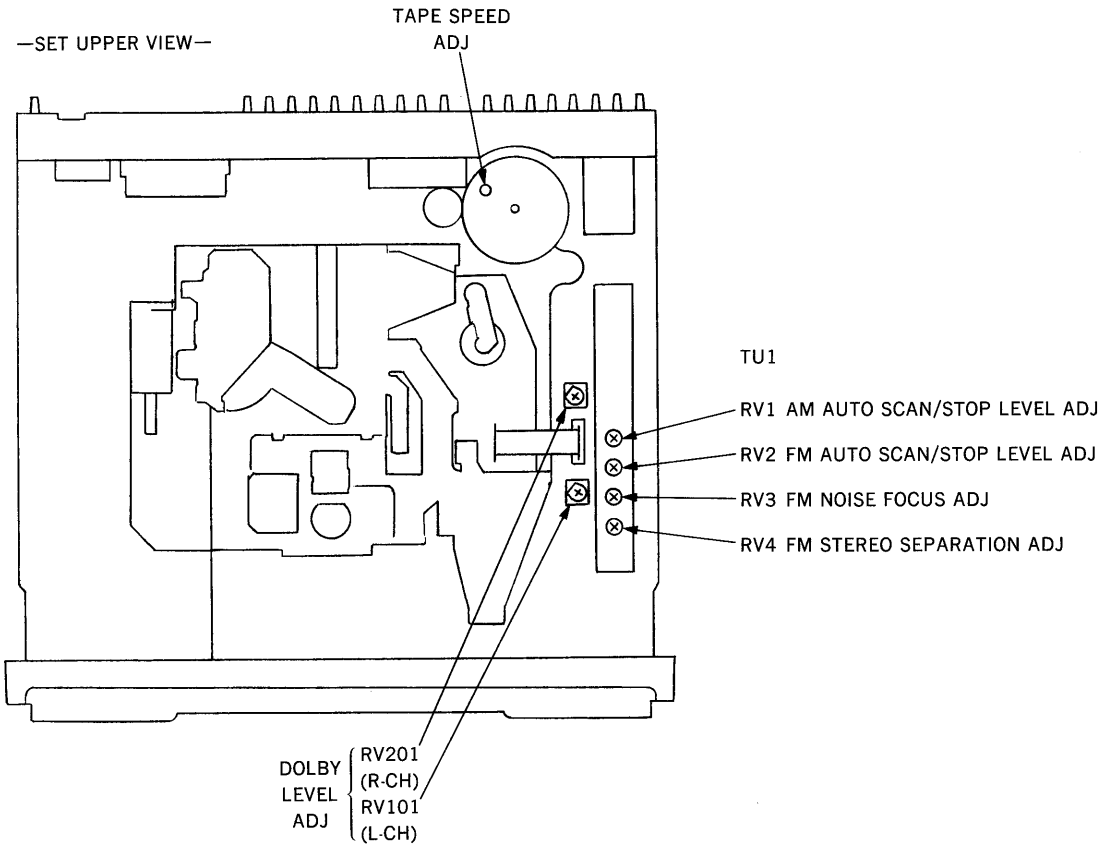
4. Adjust with the volume RV1 on TU1 so that the "AM" indication turns to "AM0" indication on the display window.
   But, in case of already indicated "AM0", turn the RV1 so that put out light "0" indication and adjustment.

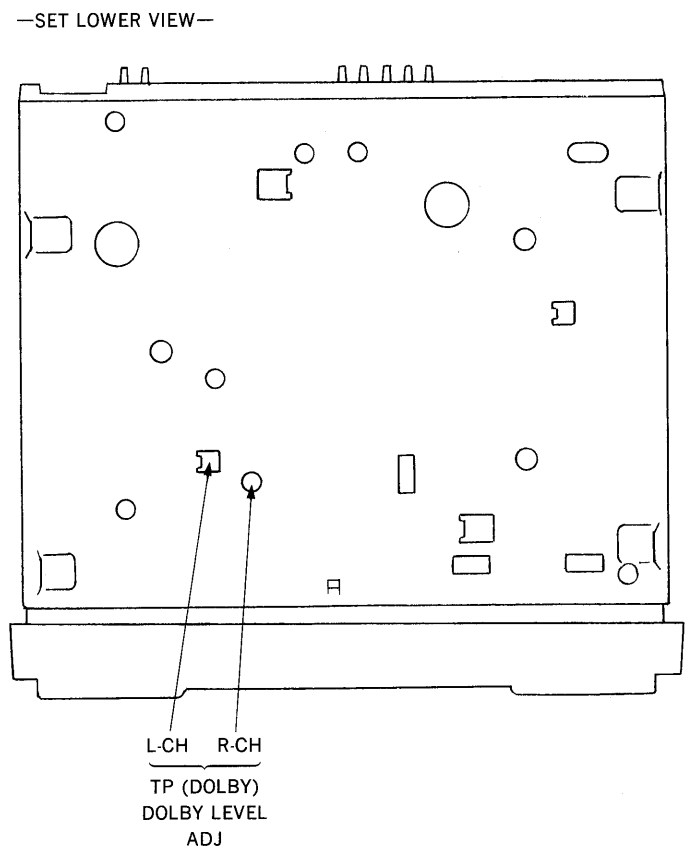
Display



Adjustment Location : See page 19.

Adjustment Location :





SECTION 6
DIAGRAMS

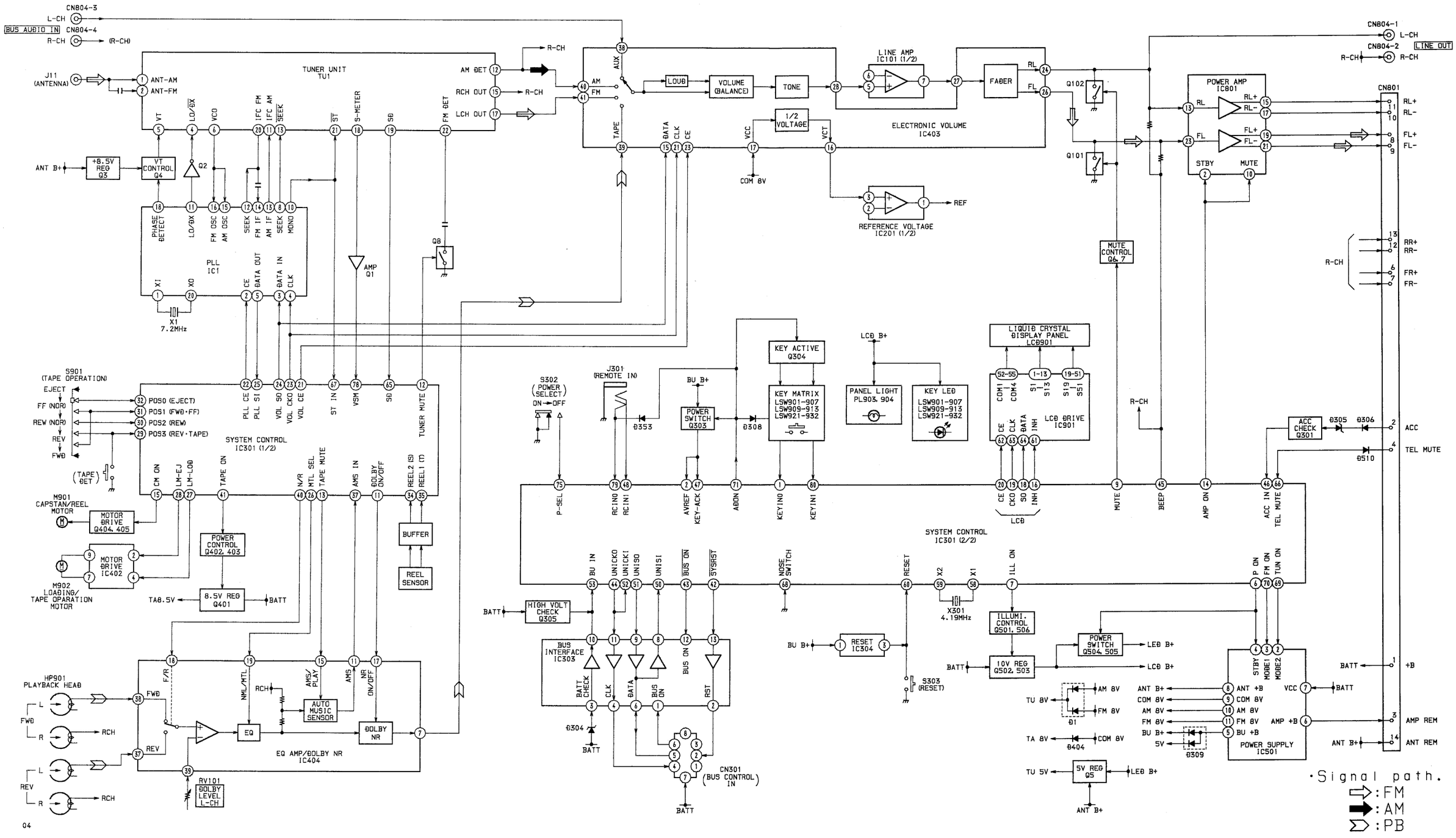
6-1. IC PIN DESCRIPTION

• IC301 μPD75518GF-320-3B9 (System Control)

Pin No.	Pin Name	I/O	Pin Description
1	KEYIN0	I	KEY input
2	AVREF	—	A/D reference voltage input
3, 4	VDD	—	Power supply terminal
5	NCO	O	Not used.
6	P-ON	O	System power control output terminal. At P-ON : High output
7	ILL-ON	O	Illumination power control output terminal. At ACC-ON : High output (P-SEL : ON), at P-ON : High output (P-SEL : OFF)
8	COLOR	O	Illumination color select control output. Not used in this set.
9	MUTE	O	System mute control output terminal. At MUTE : High output
10	AUXMUT	O	AUX control output terminal. Not used in this set.
11	DOL ON	O	DOLBY-NR control output terminal. At DOLBY-NR ON : High output
12	TUNMUT	O	Tuner exclusive mute control output terminal. At MUTE : High output
13	TAPMUT	O	Tape mute control output terminal. At MUTE : Low output
14	AMPON	O	Power amplifier power control output terminal. At AMP-ON : High output
15	CM-ON	O	Capstan motor control output terminal. At MOTOR-ON : High output
16	LCDINH	O	LCD blank display control output terminal. At LIGHT-OFF : Low output
17	TEST-IN	I	Test mode setting input terminal
18	LCDSO	O	LCD serial data output terminal
19	LCDCKO	O	LCD serial clock output terminal
20	LCDCE	O	LCD chip enable output terminal
21	VOLCE	O	Electric volume serial chip enable output terminal
22	PLLCE	O	PLL serial chip enable output terminal
23	VOLCKO	O	VOL/PLL serial clock output terminal
24	VOLSO	O	VOL/PLL serial data output terminal
25	PLLSI	I	PLL serial data input terminal
26	MTLSEL	I/O	METAL control input/output terminal. At AUTO METAL : METAL input terminal. At METAL : Low input,at NORMAL : High input. At no AUTO METAL : METAL output terminal. At METAL : Low output,at NORMAL : High output.
27	LM-LOD	O	Loading motor control output terminal (LOADING direction)
28	LM-EJ	O	Loading motor control output terminal (EJECT direction)
29—32	POS3—POS0	I	Position signal detection input terminal
33	GND	—	GND
34	REL-S	I	Reel table reverse direction rotation detection input terminal
35	REL-T	I	Reel table forward direction rotation detection input terminal
36	MTLIN	I	Connect to GND.
37	AMSIN	I	Tape music with/without detection input terminal. With music : Low input, without music : High input
38	NIL	I	Connect to GND.
39	NIL	I	Not used.
40	N-ROUT	O	Forward/Reverse detection output terminal. At FORWARD : High output,at REVERSE : Low output
41	TAPON	O	Tape power control output terminal
42	$\overline{\text{SYSRST}}$	O	System reset control output terminal
43	$\overline{\text{BUSON}}$	O	BUS ON control output terminal
44	UNICKO	O	Serial clock output terminal

Pin No.	Pin Name	I/O	Pin Description
45	BEEP	O	Buzzer control output terminal
46	ACCIN	I	ACC power control input terminal
47	KEYACK	I	Key acknowledge input terminal
48	RC-IN1	I	Rotary commander input terminal
49	SIRCS	I	Connect to GND.
50	UNISI	I	Serial data input terminal
51	UNISO	O	Serial data output terminal
52	UNICKI	I	Serial clock input terminal
53	BU-IN	I	Back-up voltage detection input terminal
54, 55	GND	—	GND
56	—	—	Not used.
57	GND	—	GND
58	X1	—	Connect to crystal (4.19MHz).
59	X2	—	Connect to crystal (4.19MHz).
60	RESET	—	RESET input terminal
61	COLSEL	I	Connect to GND.
62	CONTSEL	I	Connect to GND.
63	DK	I	Connect to GND.
64	SK	I	Connect to GND.
65	SD-IN	I	Station detector detection input terminal. At with SD : High input
66	TELMUT	I	Telephone mute detection input terminal. At 20dB audio mute : Low input
67	ST-IN	I	STEREO input terminal. At FM STEREO : Low input
68	NOSESW	I	Front panel with/without detection input terminal. At with front panel : Low input
69	TUN-ON	O	TUNER power control output terminal. At TUNER ON : High output
70	FM-ON	O	FM power control output terminal. At FM (both playing and behind) : High output
71	AD-ON	O	A/D power control output terminal. At A/D port input possible mode : Low output
72	NCO	O	Not used.
73	AVSS	I	GND
74	DOLSEL	I	Connect to GND.
75	PW-SEL	I	Power select first setting input terminal. At POWER SELECT ON : High input
76	DSTSEL1	I	Destination setting terminal
77	DSTSEL0	I	Destination setting terminal
78	VSM	I	FM/AM common signal meter A/D change input terminal
79	RC-IN0	I	Rotary commander input terminal
80	KEYIN1	I	KEY input

6-2. BLOCK DIAGRAM



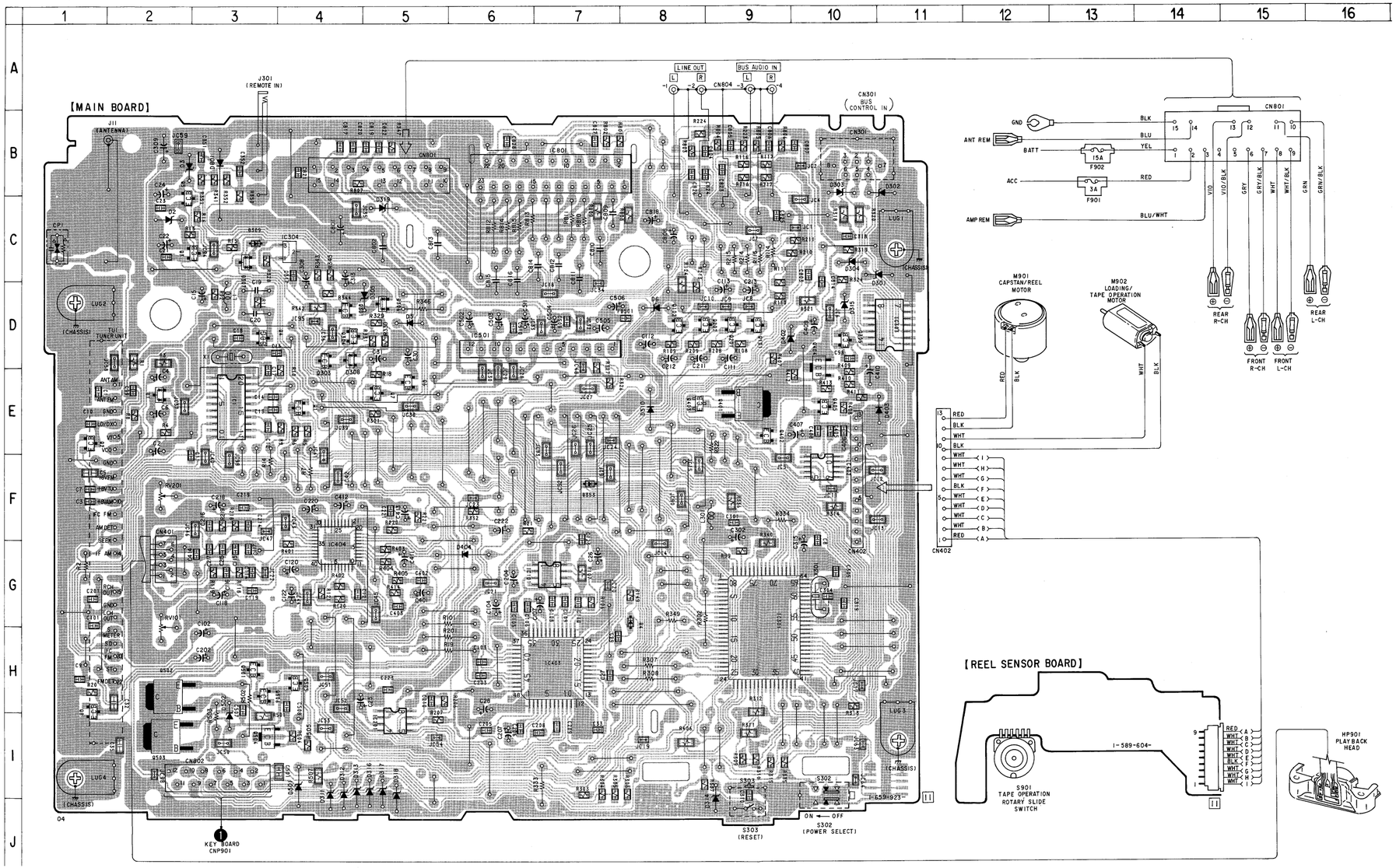
6-3. PRINTED WIRING BOARDS—MAIN SECTION—

● **Semiconductor Location**

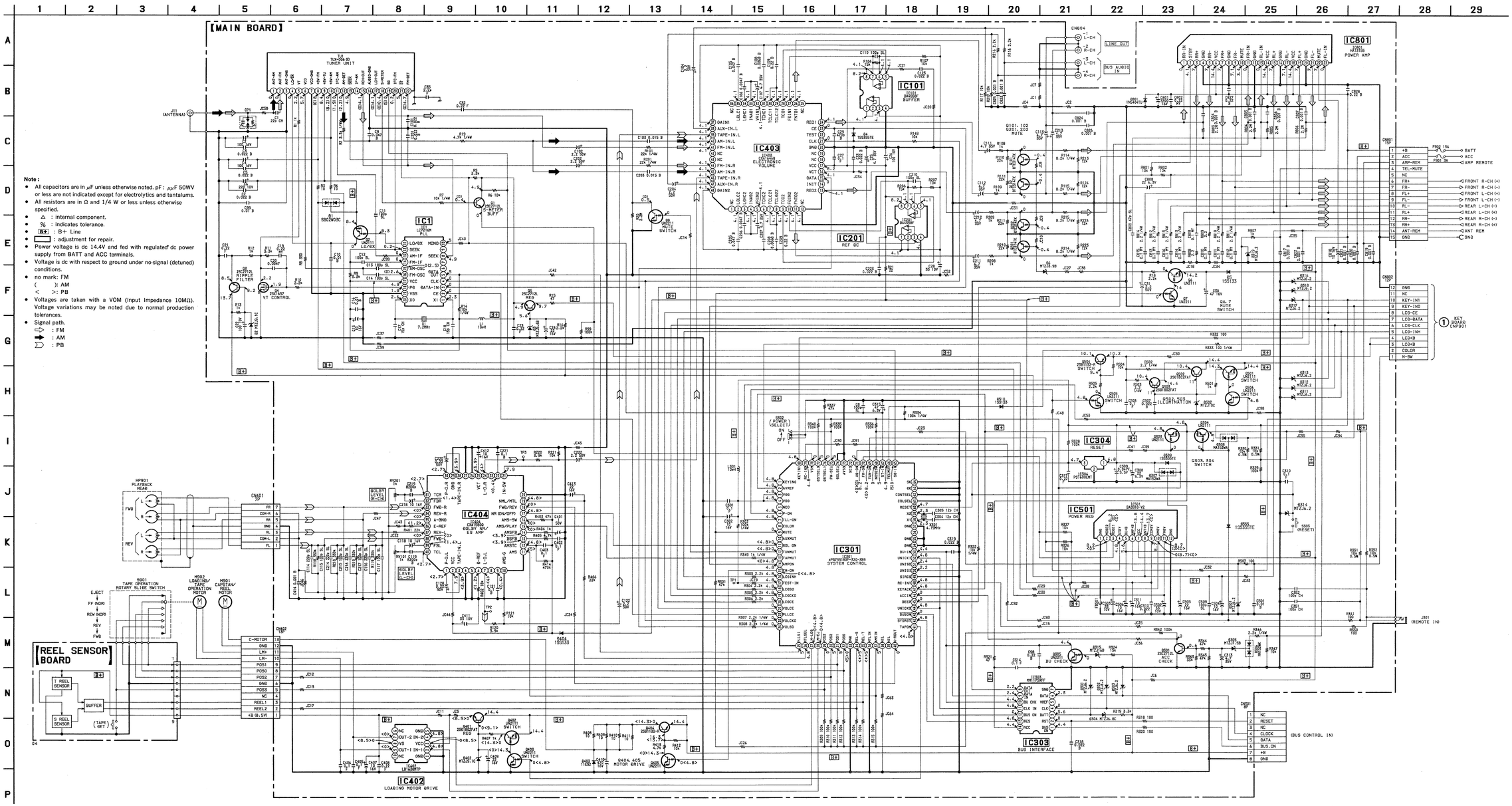
Ref. No.	Location	Ref. No.	Location
D1	E-2	IC301	G-9
D2	C-2	IC303	D-11
D3	B-2	IC304	C-4
D4	G-8	IC402	F-10
D5	D-5	IC403	H-7
D6	D-8	IC404	G-4
D301	C-10	IC501	D-6
D302	B-11	IC801	B-7
D303	B-10		
D304	C-10	Q1	E-4
D305	D-5	Q2	E-1
D306	D-5	Q3	C-2
D307	C-3	Q4	D-3
D308	D-4	Q5	B-2
D309	C-3	Q6	E-5
D311	I-4	Q7	E-5
D312	I-4	Q8	H-1
D313	I-4	Q101	D-9
D314	I-9	Q102	D-8
D315	D-10	Q201	D-9
D316	I-5	Q202	D-9
D317	I-5	Q301	D-4
D318	I-5	Q303	D-4
D319	C-5	Q304	D-4
D353	F-7	Q305	D-10
D402	D-9	Q401	E-9
D403	E-11	Q402	E-9
D404	G-6	Q403	E-8
D501	I-4	Q404	D-10
D502	H-3	Q405	E-10
D510	E-8	Q501	H-3
D801	B-3	Q502	H-2
		Q503	I-2
IC1	E-3	Q504	I-3
IC101	G-7	Q505	H-4
IC201	I-5	Q506	H-3

Note :

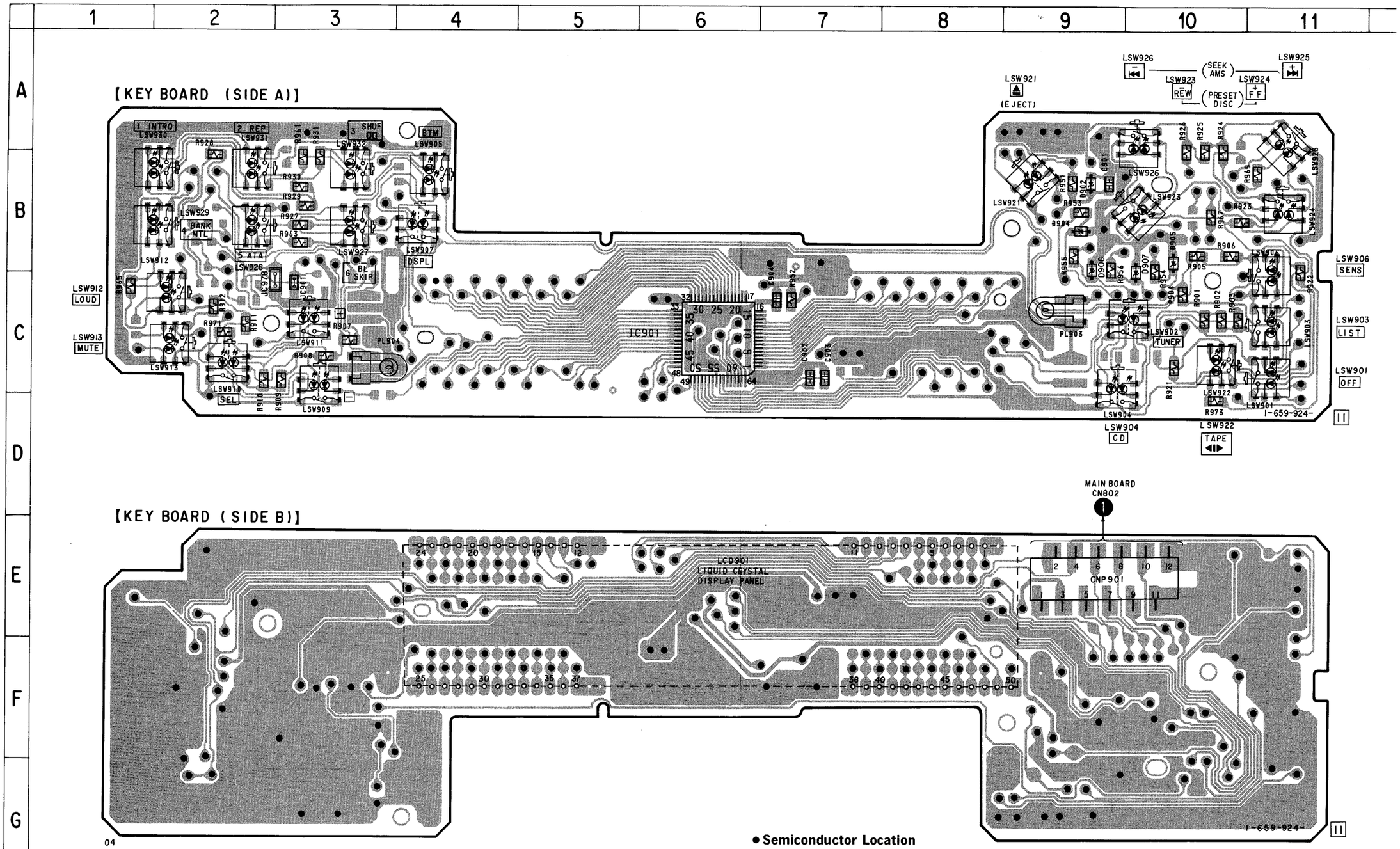
● ○— : parts extracted from the component side.



6-4. SCHEMATIC DIAGRAM—MAIN SECTION— • Refer to page 35 for IC Block Diagrams.



6-5. PRINTED WIRING BOARD—PANEL SECTION—

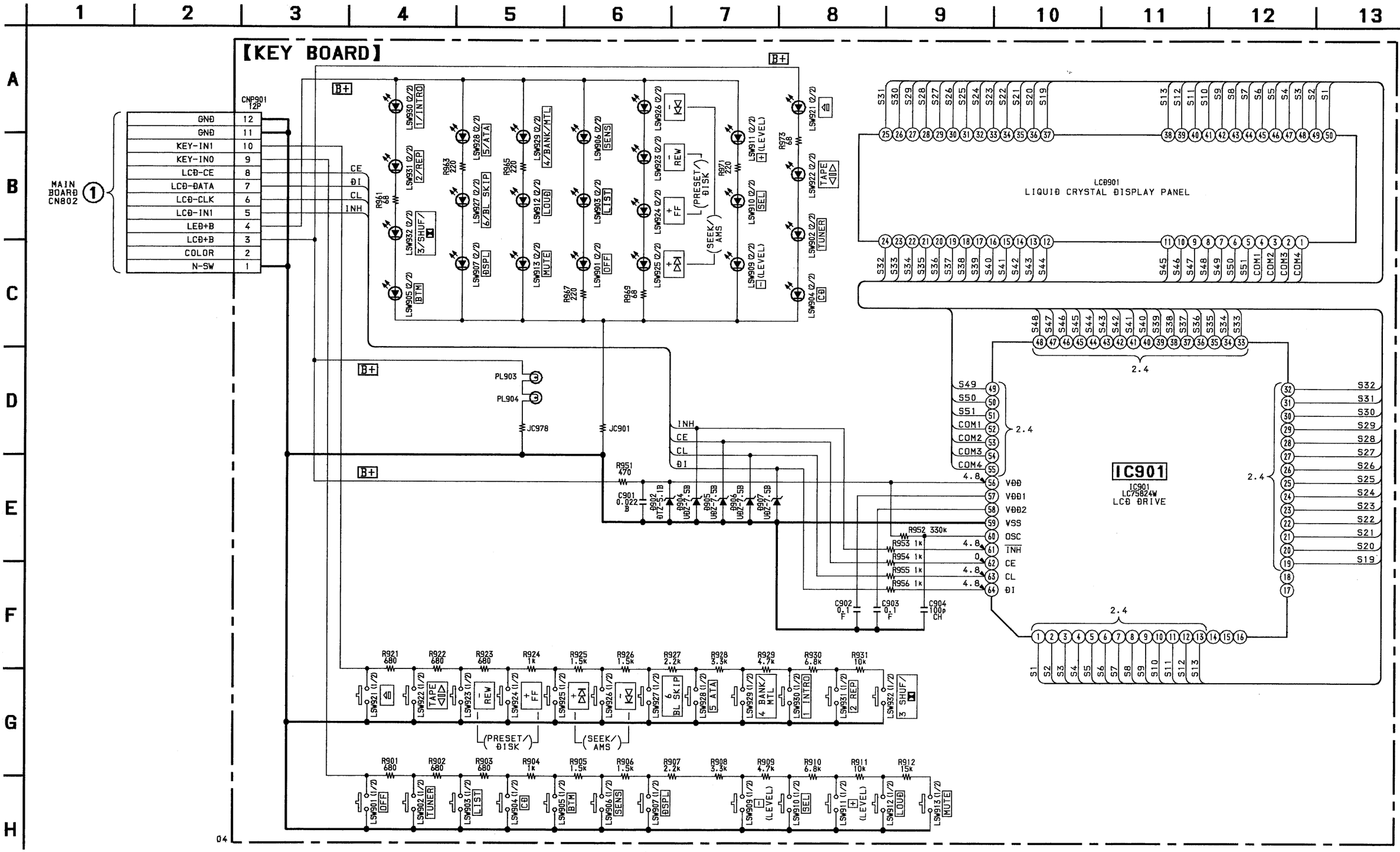


● Semiconductor Location

Ref. No.	Location
D902	B-9
D904	B-9
D905	B-10
D906	B-9
D907	B-10
IC901	C-6

Note :

- ○— : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
  (The other layer's patterns are not indicated.)

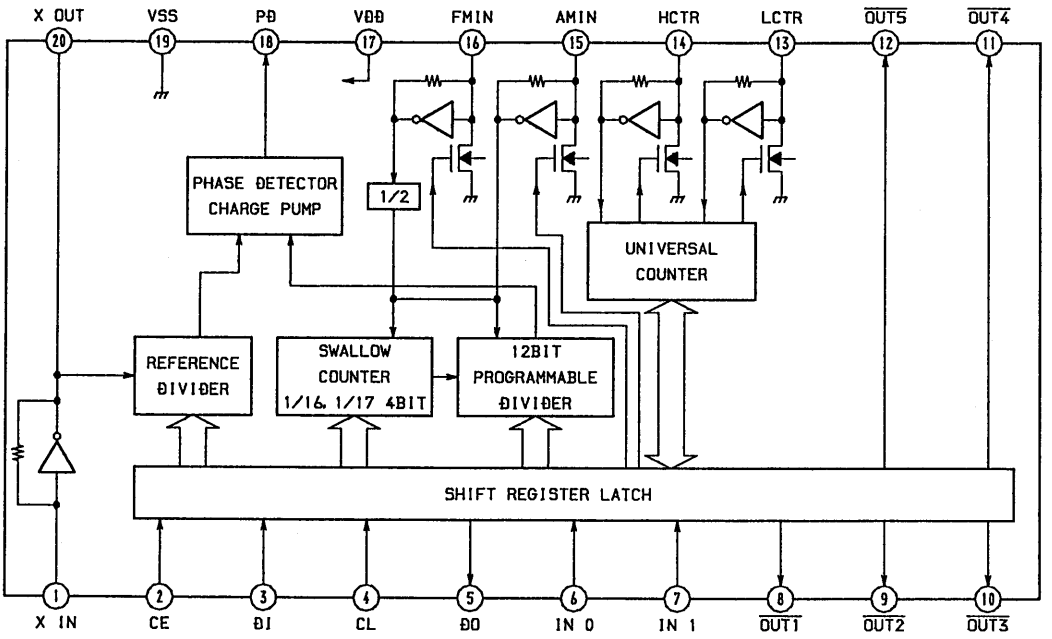


Note :

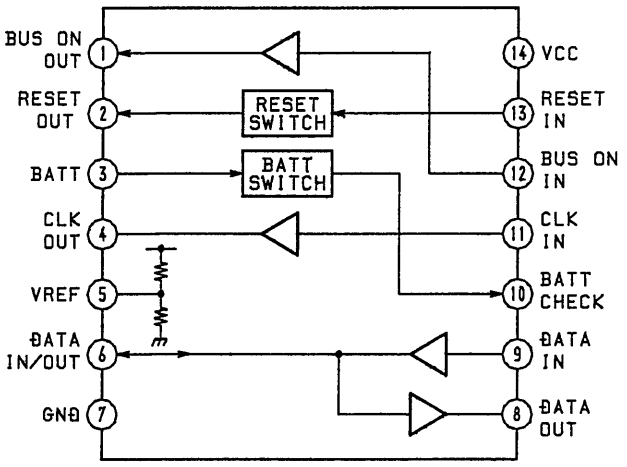
- All capacitors are in μF unless otherwise noted. pF : $\mu\mu$F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line
- Power voltage is dc 14.4V and fed with regulated dc power supply from BATT and ACC terminals.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

• **IC Block Diagrams**

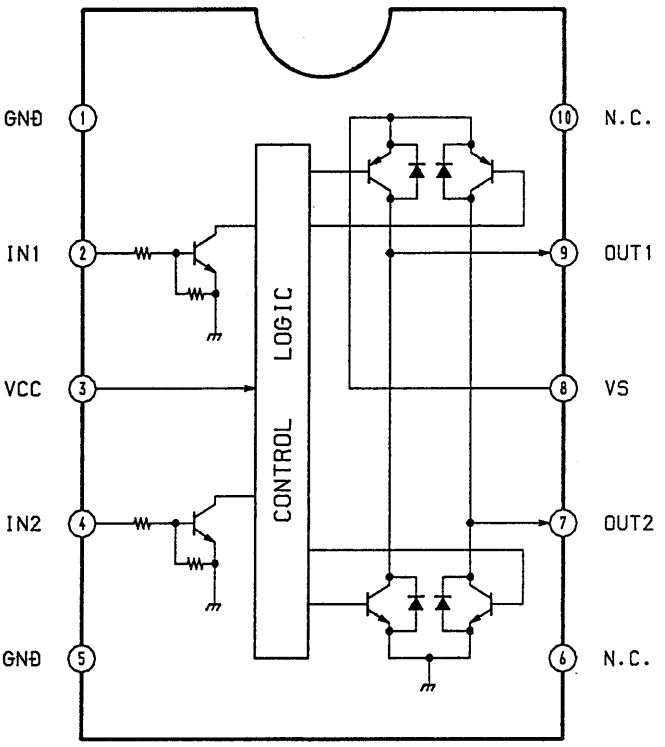
IC1 LC7216M



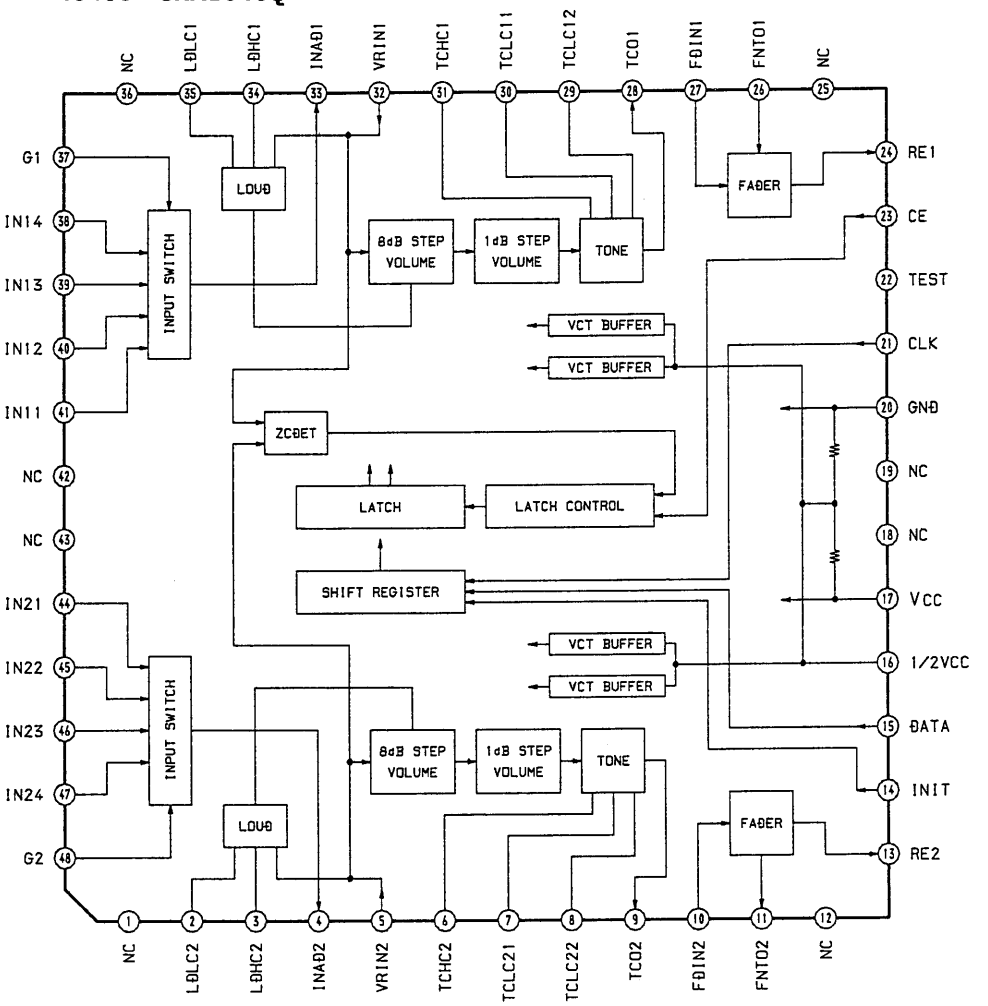
IC303 MM1175XFF



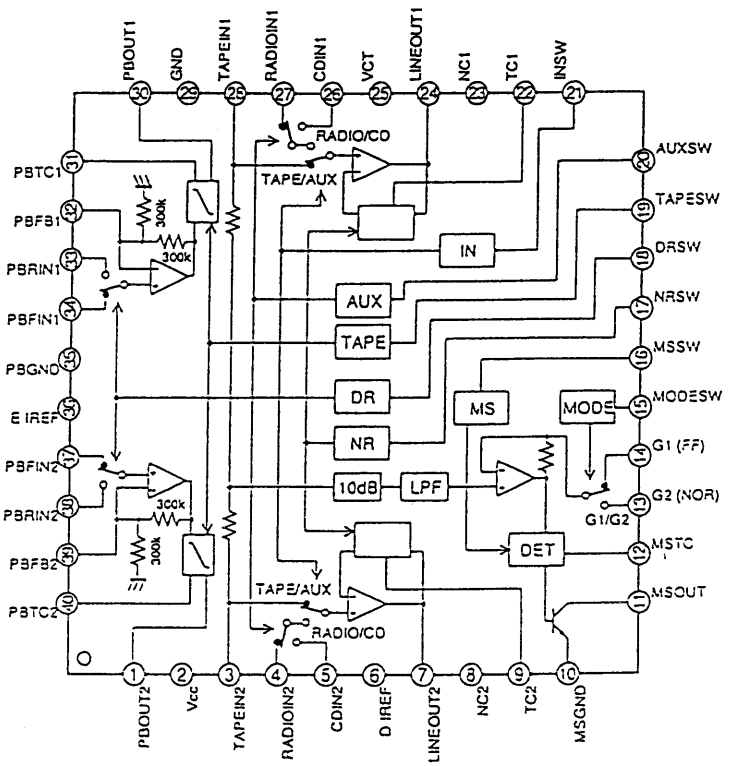
IC401 LB1638MTP



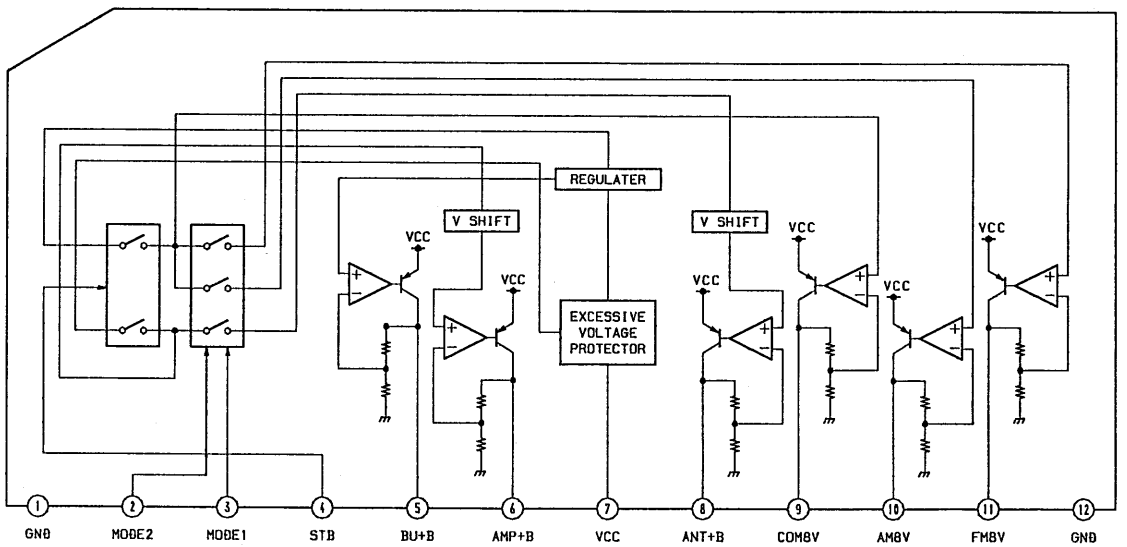
IC403 CXA1646Q



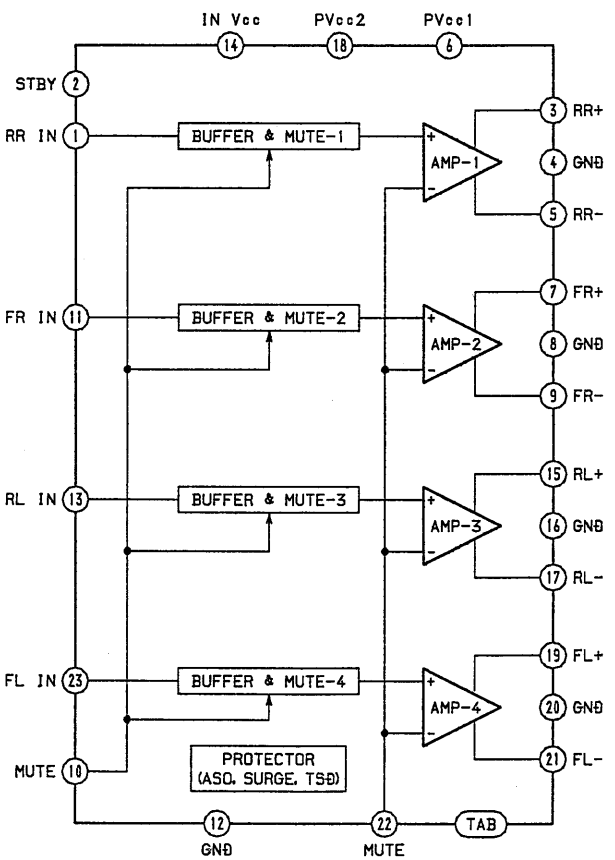
IC404 CXA1580Q



IC501 BA3918B-V2



IC801 HA13155

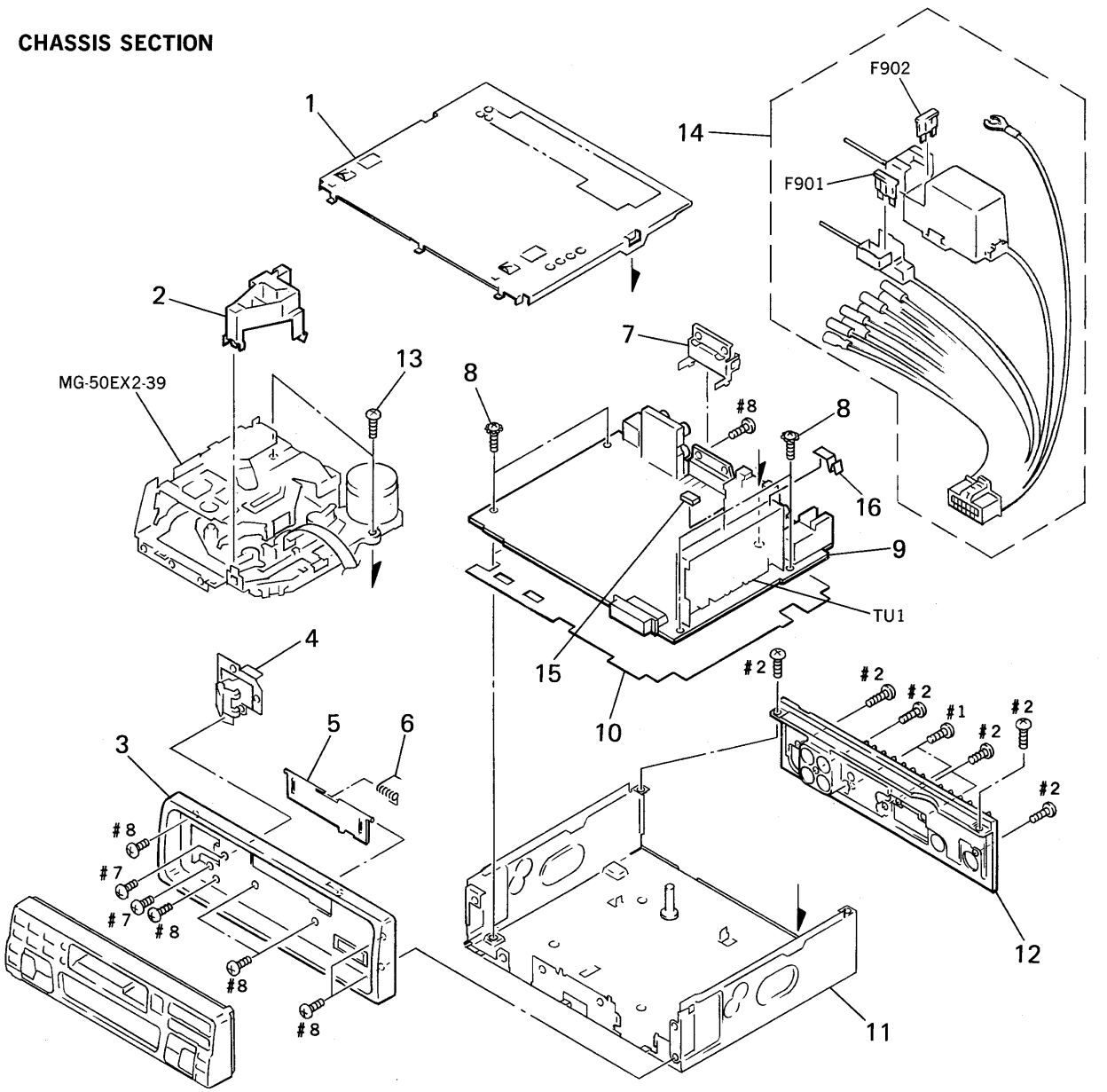


SECTION 7
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

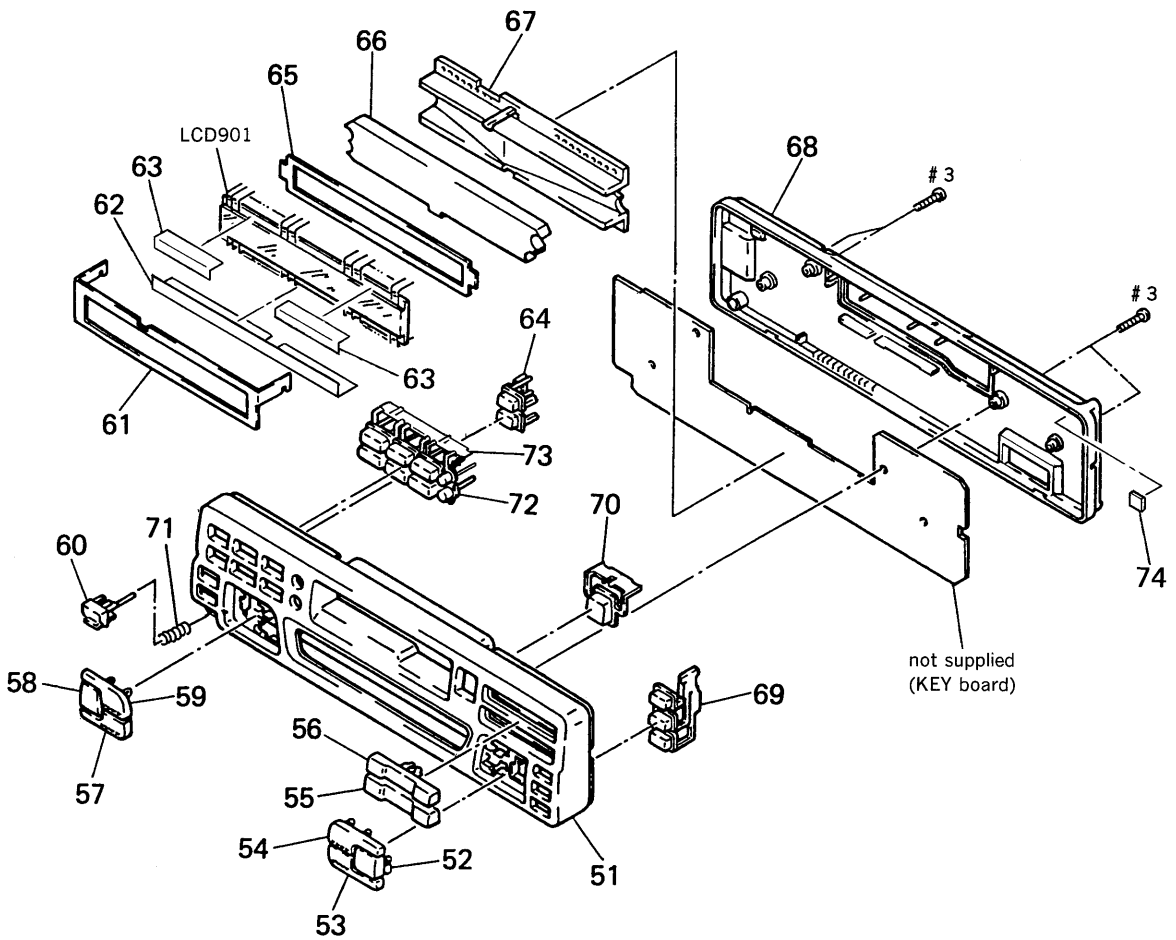
7-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
* 1	X-3368-833-1	COVER ASSY	
2	3-927-799-01	GUIDE (CASSETTE)	
3	3-931-414-01	PANEL, SUB	
4	X-3367-636-1	LOCK ASSY	
5	3-931-233-01	DOOR, CASSETTE	
6	3-913-076-01	SPRING (C DOOR), TORSION	
* 7	3-921-320-01	HOLDER (IC)	
8	3-915-923-01	SCREW, GROUND POINT	
* 9	A-3309-174-A	MAIN BOARD, COMPLETE	
* 10	3-922-170-11	SHEET, INSULATING	

Ref. No.	Part No.	Description	Remark
* 11	X-3368-832-1	CHASSIS ASSY	
* 12	3-921-319-01	HEAT SINK	
13	3-919-171-01	SCREW (2.6X6) (C TIGHT)	
14	1-765-081-11	CORD (WITH CONNECTOR)	
15	9-911-840-XX	CUSHION (U)	
16	3-925-065-11	SHEET (CU)	
F901	1-533-326-11	FUSE (BLADE TYPE) (AUTO FUSE) (3A)	
F902	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) (15A)	
TU1	A-3282-012-A	TUNER UNIT (TUX-006(E))	

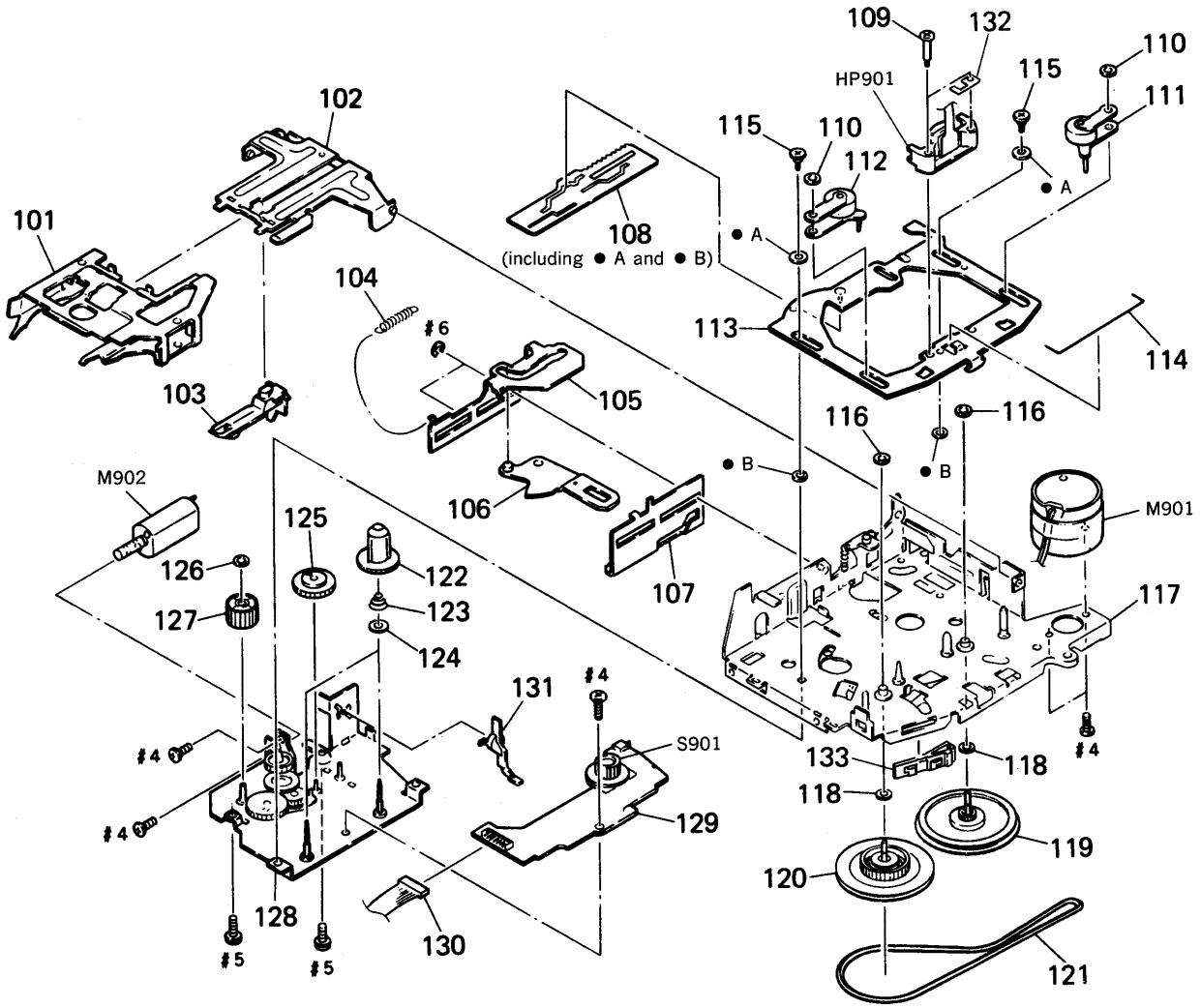
7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-921-648-71	PANEL, FRONT	
52	3-929-806-11	BUTTON (CD. TAPE)	
53	3-929-808-51	BUTTON (AM)	
54	3-929-807-11	BUTTON (FM)	
55	3-929-812-11	BUTTON (PRISET)	
56	3-929-811-01	BUTTON (SEEK)	
57	3-929-810-01	BUTTON (-)	
58	3-929-805-01	BUTTON (SEL)	
59	3-929-809-01	BUTTON (+)	
60	3-930-844-01	BUTTON (RELEASE)	
* 61	3-921-659-01	PLATE (LCD), GROUND	
* 62	3-921-726-01	SHEET (LCD) (L)	
* 63	3-921-727-01	SHEET (LCD) (S)	

Ref. No.	Part No.	Description	Remark
64	3-929-816-01	BUTTON (2 GANG)	
* 65	3-935-363-01	SHEET (REFLECTOR)	
* 66	3-921-656-01	PLATE, LIGHT GUIDE	
* 67	3-921-730-01	HOLDER (LCD)	
68	3-921-649-01	PANEL, FRONT BACK	
69	3-929-817-41	BUTTON (3 GANG)	
70	3-929-815-01	BUTTON (EJECT)	
71	3-375-373-01	SPRING (RELEASE)	
72	3-929-814-41	BUTTON (4-6)	
73	3-929-813-51	BUTTON (1-3)	
74	9-911-841-XX	CUSHION, CASSETTE LID	
LCD901	1-801-160-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. MECHANISM DECK SECTION (MG-50EX2-39)



Ref. No.	Part No.	Description	Remark
101	3-928-222-01	HOUSING (2), CASSETTE	
102	3-912-882-01	HANGER (2), HOUSING	
103	3-912-884-01	CATCHER	
104	3-912-885-01	SPRING (LOADING LEVER), TENSION	
* 105	3-912-892-01	LEVER (B), LOADING	
* 106	3-912-883-01	ARM, SUCTION	
107	3-922-941-01	LEVER (LOADING A)	
* 108	X-3370-516-1	LEVER (SV) ASSY, MODE	
109	3-927-100-11	SCREW (+PS 2X10), SPECIAL	
110	3-579-788-01	WASHER, STOPPER	
111	X-3368-266-1	PINCH LEVER (F) ASSY	
112	X-3368-267-1	PINCH LEVER (R) ASSY	
113	X-3370-824-1	BASE ASSY (HD2), HEAD	
114	3-912-879-01	SPRING, PINCH PRESS	
115	3-931-184-01	SCREW (HB2), STEP	
116	3-364-151-01	WASHER	
117	X-3368-841-1	CHASSIS (SV) ASSY (A), MECHANICAL	
118	3-701-437-21	WASHER	
119	3-930-932-01	FLYWHEEL (F) (SEF)	

Ref. No.	Part No.	Description	Remark
120	X-3371-303-1	CLUTCH (SEF) ASSY, FR	
121	3-912-896-01	BELT	
122	X-3368-843-1	GEAR ASSY, REEL	
123	3-917-222-01	SPRING (B-T), COIL	
124	3-917-324-01	WASHER (B-T)	
125	3-912-888-03	GEAR (LOADING E)	
126	3-321-813-01	WASHER, COTTER POLYETHYLENE	
127	3-912-889-01	GEAR (LOADING F)	
128	X-3368-842-1	BRACKET (SV) ASSY, REEL	
129	1-589-604-11	REEL SENSOR BOARD	
130	1-765-460-12	CORD (WITH CONNECTOR)	
131	3-916-358-01	LEVER (TAPE IN 2)	
* 132	3-917-258-01	PLATE, GROUND	
133	3-919-553-01	GUIDE (BELT)	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3368-684-1	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M902	X-3368-685-1	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	

SECTION 8
ELECTRICAL PARTS LIST

KEY

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		*********			
*	3-921-656-01	PLATE, LIGHT GUIDE			
	3-921-957-01	HOLDER (LCD)			
*	3-921-660-01	SHEET (REFLECTOR)			
		< CAPACITOR >			
C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C904	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CNP901	1-764-423-11	PIN, CONNECTOR 12P			
		< DIODE >			
D902	8-719-976-99	DIODE	DTZ5.1B		
D904	8-719-056-84	DIODE	UDZ-TE-17-7.5B		
D905	8-719-056-84	DIODE	UDZ-TE-17-7.5B		
D906	8-719-056-84	DIODE	UDZ-TE-17-7.5B		
D907	8-719-056-84	DIODE	UDZ-TE-17-7.5B		
		< IC >			
IC901	8-759-365-90	IC	LC75824W		
		< JUMPER RESISTOR >			
JC901	1-216-295-00	CONDUCTOR, CHIP			(2012)
JC978	1-216-296-00	CONDUCTOR, CHIP			(3216)
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-801-160-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< SWITCH >			
LSW901	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(OFF)
LSW902	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(TUNER)
LSW903	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(LIST)
LSW904	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(CD)
LSW905	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(BTM)
LSW906	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(SENS)
LSW907	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(DSPL)
LSW909	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(-)
LSW910	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(SEL)
LSW911	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(+)
LSW912	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(LOUD)
LSW913	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(MUTE)
LSW921	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(⏏)
LSW922	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(TAPE ◀▮▶)
LSW923	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(REW - (PRESET/DISC))
LSW924	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(FF + (PRESET/DISC))
LSW925	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(⏭ + (SEEK/AMS))
LSW926	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(⏮ - (SEEK/AMS))
LSW927	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(6 BL.SKIP)
LSW928	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(5 ATA)
LSW929	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(4 BANK/MTL)
LSW930	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(1 INTRO)
LSW931	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(2 REP)
LSW932	1-762-142-12	SWITCH, KEY BOARD (WITH LED)			(3 SHUF/▯▯)
		< PILOT LAMP >			
PL903	1-517-407-21	LAMP, PILOT			
PL904	1-517-407-21	LAMP, PILOT			
		< RESISTOR >			
R901-903	1-216-045-00	METAL CHIP	680	5%	1/10W
R904	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R905	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R906	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R907	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R908	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R909	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R910	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-077-00	METAL CHIP	15K	5%	1/10W

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
R921-923					
	1-216-045-00	METAL CHIP	680	5%	1/10W
R924	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R925	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R926	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R927	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R928	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R929	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R930	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R931	1-216-073-00	METAL CHIP	10K	5%	1/10W
R951	1-216-041-00	METAL CHIP	470	5%	1/10W
R952	1-216-109-00	METAL CHIP	330K	5%	1/10W
R953-956					
	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R961	1-216-021-00	METAL CHIP	68	5%	1/10W
R963	1-216-033-00	METAL CHIP	220	5%	1/10W
R965	1-216-033-00	METAL CHIP	220	5%	1/10W
R967	1-216-033-00	METAL CHIP	220	5%	1/10W
R969	1-216-021-00	METAL CHIP	68	5%	1/10W
R971	1-216-033-00	METAL CHIP	220	5%	1/10W
R973	1-216-021-00	METAL CHIP	68	5%	1/10W

****

* A-3309-174-A MAIN BOARD, COMPLETE
****

* 3-921-320-01 HOLDER (IC)
7-621-773-95 SCREW +PTT 2.6X6 (S)

< CAPACITOR >

C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-126-933-11	ELECT	100uF	20%	16V
C3	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C4	1-126-933-11	ELECT	100uF	20%	16V
C5	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V
C6	1-126-923-11	ELECT	220uF	20%	10V
C7	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C8	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C9	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C10	1-164-232-11	CERAMIC CHIP	0.01uF	10%	100V
C11-14					
	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C15	1-126-157-11	ELECT	10uF	20%	16V
C16	1-164-232-11	CERAMIC CHIP	0.01uF	10%	100V
C17	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C18	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C19	1-136-169-00	FILM	0.22uF	5%	50V
C20	1-137-368-11	FILM	0.0047uF	5%	50V
C21	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C22	1-124-584-00	ELECT	100uF	20%	10V
C23	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C24	1-124-234-00	ELECT	22uF	20%	16V
C25	1-126-163-11	ELECT	4.7uF	20%	50V
C26	1-124-584-00	ELECT	100uF	20%	10V
C27	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C28	1-124-229-00	ELECT	33uF	20%	10V
C29	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C30	1-124-589-11	ELECT	47uF	20%	16V
C31	1-124-257-00	ELECT	2.2uF	20%	50V
C32	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C33	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C35	1-164-337-11	CERAMIC CHIP	2.2uF		16V
C98	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C99	1-164-232-11	CERAMIC CHIP	0.01uF	10%	100V
C101	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C102	1-124-257-00	ELECT	2.2uF	20%	50V
C103	1-163-023-00	CERAMIC CHIP	0.015uF	10%	50V
C104	1-124-257-00	ELECT	2.2uF	20%	50V
C105	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C106	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C107	1-126-163-11	ELECT	4.7uF	20%	50V
C108	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C109	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C110	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C111-113					
	1-126-163-11	ELECT	4.7uF	20%	50V
C114	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C115	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C116	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C117	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C118	1-126-157-11	ELECT	10uF	20%	16V
C119	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C120	1-124-464-11	ELECT	0.22uF	20%	50V
C121	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C122	1-124-257-00	ELECT	2.2uF	20%	50V
C123	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C201	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C202	1-124-257-00	ELECT	2.2uF	20%	50V
C203	1-163-023-00	CERAMIC CHIP	0.015uF	10%	50V
C204	1-124-257-00	ELECT	2.2uF	20%	50V
C205	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C206	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C207	1-126-163-11	ELECT	4.7uF	20%	50V
C208	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C209	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C210	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C211-213					
	1-126-163-11	ELECT	4.7uF	20%	50V
C214	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C215	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C216	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C217	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C218	1-126-157-11	ELECT	10uF	20%	16V
C219	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C220	1-124-464-11	ELECT	0.22uF	20%	50V
C221	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C222	1-124-257-00	ELECT	2.2uF	20%	50V
C223	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C301	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C302	1-126-157-11	ELECT	10uF	20%	16V
C304	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C305	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C308	1-126-153-11	ELECT	22uF	20%	6.3V
C309	1-125-701-11	CAPACITOR	0.047F		5.5V
C310	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C313	1-126-163-11	ELECT	4.7uF	20%	50V
C314	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C315	1-126-154-11	ELECT	47uF	20%	6.3V
C317	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C318	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C319	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C351	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C352	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C401	1-126-301-11	ELECT	1uF	20%	50V
C402	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C403	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C405	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C406	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C407	1-126-157-11	ELECT	10uF	20%	16V
C408	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C409	1-124-234-00	ELECT	22uF	20%	16V
C410	1-126-935-11	ELECT	470uF	20%	16V
C411	1-124-229-00	ELECT	33uF	20%	10V
C412	1-126-157-11	ELECT	10uF	20%	16V
C413	1-124-234-00	ELECT	22uF	20%	16V
C414	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C501	1-164-232-11	CERAMIC CHIP	0.01uF	10%	100V
C502	1-124-229-00	ELECT	33uF	20%	10V
C503	1-124-229-00	ELECT	33uF	20%	10V
C504	1-126-157-11	ELECT	10uF	20%	16V
C505	1-124-234-00	ELECT	22uF	20%	16V
C506	1-126-157-11	ELECT	10uF	20%	16V
C507	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C508	1-163-038-00	CERAMIC CHIP	0.1uF		50V
C509	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C510	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C511	1-126-157-11	ELECT	10uF	20%	16V
C801	1-126-936-11	ELECT	3300uF	20%	16V
C802	1-136-169-00	FILM	0.22uF	5%	50V
C803	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C804-807					
	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C808	1-126-153-11	ELECT	22uF	20%	6.3V
C809-816					
	1-136-165-00	FILM	0.1uF	5%	50V
C817	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C818	1-126-157-11	ELECT	10uF	20%	16V
C819-826					
	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C827	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C828	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V

< CONNECTOR >

CN301	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)	
CN401	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P	
* CN402	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P	
CN801	1-764-426-11	PLUG, CONNECTOR 15P	
CN802	1-764-422-11	PLUG, CONNECTOR 12P	
CN804	1-764-697-11	JACK, PIN 4P (LINE OUT, BUS AUDIO IN)	

< DISCHARGE GAP >

CP1	1-519-504-11	GAP, DISCHARGE	

< DIODE >

D1	8-719-991-65	DIODE	SB02W03C
D2	8-719-110-14	DIODE	RD9.1ES-B3
D3	8-719-109-89	DIODE	RD5.6ESB2
D4	8-719-988-62	DIODE	1SS355
D5	8-719-991-33	DIODE	1SS133T-77
D6	8-719-109-72	DIODE	RD3.9ES-B2
D301	8-719-921-54	DIODE	MTZJ-6.2B
D302	8-719-921-54	DIODE	MTZJ-6.2B
D303	8-719-921-54	DIODE	MTZJ-6.2B
D304	8-719-109-97	DIODE	RD6.8ES-B2
D305	8-719-921-63	DIODE	MTZJ-7.5B
D306	8-719-801-78	DIODE	1SS184
D307	8-719-400-20	DIODE	MA152WA
D308	8-719-400-20	DIODE	MA152WA
D309	8-719-988-62	DIODE	1SS355
D311	8-719-921-54	DIODE	MTZJ-6.2B
D312	8-719-921-54	DIODE	MTZJ-6.2B
D313	8-719-921-54	DIODE	MTZJ-6.2B
D314	8-719-921-54	DIODE	MTZJ-6.2B
D315	8-719-923-92	DIODE	MTZJ-T-77-16B
D316	8-719-921-54	DIODE	MTZJ-6.2B
D317	8-719-921-54	DIODE	MTZJ-6.2B
D318	8-719-921-54	DIODE	MTZJ-6.2B
D319	8-719-921-54	DIODE	MTZJ-6.2B

MAIN

Ref. No.	Part No.	Description	Remark
D353	8-719-988-62	DIODE 1SS355	
D402	8-719-110-14	DIODE RD9.1ES-B3	
D403	8-719-200-82	DIODE 11ES2	
D404	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-921-54	DIODE MTZJ-6.2B	
D502	8-719-048-55	DIODE MTZJ-T-77-10C	
D510	8-719-991-33	DIODE 1SS133T-77	
D801	8-719-049-38	DIODE 1N5404TU	
		< FERRITE BEAD >	
FB501	1-414-233-21	INDUCTOR, FERRITE BEAD	
		< IC >	
IC1	8-759-823-81	IC LC7216M	
IC101	8-759-909-71	IC BA4558F	
IC201	8-759-909-71	IC BA4558F	
IC301	8-759-380-49	IC uPD75518GF-320-3B9	
IC303	8-759-096-16	IC MM1175XFF	
IC304	8-759-167-83	IC PST600EMT-T1	
IC402	8-759-823-87	IC LB1638M	
IC403	8-752-063-44	IC CXA1646Q	
IC404	8-752-070-22	IC CXA1580Q-T4	
IC501	8-759-347-49	IC BA3918-V2	
IC801	8-759-369-41	IC HA13155	
		< JACK >	
J11	1-764-808-11	JACK (ANTENNA)	
J301	1-566-822-41	JACK (REMOTE IN)	
		< JUMPER RESISTOR >	
JC1	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC2	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC4-7	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC8-11	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC12-15	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC17	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC18	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC19	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC20	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC21	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC22-24	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC25-30	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC32	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC33	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC34	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC35-46	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC47	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC48	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC50-53	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC54	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC56	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC57	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC58	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC59	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC63	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC64	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC90-94	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC95	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC98	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC99	1-216-296-00	CONDUCTOR, CHIP (3216)	
		< COIL >	
L1	1-410-509-61	INDUCTOR 10uH	
L301	1-410-509-61	INDUCTOR 10uH	
		< EARTH TERMINAL >	
* LUG1-4	1-537-738-21	TERMINAL, EARTH	
		< TRANSISTOR >	
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2	8-729-424-08	TRANSISTOR UN2111	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6	8-729-424-08	TRANSISTOR UN2111	
Q7	8-729-421-22	TRANSISTOR UN2211	
Q8	8-729-421-22	TRANSISTOR UN2211	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q301	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-424-08	TRANSISTOR UN2111	
Q304	8-729-424-08	TRANSISTOR UN2111	
Q305	8-729-421-22	TRANSISTOR UN2211	
Q401	8-729-807-12	TRANSISTOR 2SD1802-S	
Q402	8-729-424-08	TRANSISTOR UN2111	
Q403	8-729-421-22	TRANSISTOR UN2211	
Q404	8-729-106-60	TRANSISTOR 2SB1115A	

Ref. No.	Part No.	Description				Remark
Q405	8-729-421-22	TRANSISTOR	UN2211			
Q501	8-729-424-08	TRANSISTOR	UN2111			
Q502	8-729-807-12	TRANSISTOR	2SD1802-S			
Q503	8-729-807-12	TRANSISTOR	2SD1802-S			
Q504	8-729-106-60	TRANSISTOR	2SB1115A			
Q505	8-729-421-22	TRANSISTOR	UN2211			
Q506	8-729-421-22	TRANSISTOR	UN2211			
		< RESISTOR >				
R1	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R2	1-249-423-11	CARBON	3.3K	5%	1/4W	
R3	1-216-150-00	METAL GLAZE	10	5%	1/8W	
R4	1-216-001-00	METAL CHIP	10	5%	1/10W	
R5	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R6	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R7	1-249-429-11	CARBON	10K	5%	1/4W	
R8	1-216-037-00	METAL CHIP	330	5%	1/10W	
R9	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R10	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R11	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R12	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R13	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R14	1-249-429-11	CARBON	10K	5%	1/4W	
R15	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R16	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R18	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R19	1-249-425-11	CARBON	4.7K	5%	1/4W	
R20	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R21	1-216-009-00	METAL CHIP	22	5%	1/10W	
R99	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R101	1-247-863-00	CARBON	22K	5%	1/4W	
R106	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R107	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R108	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R109	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R110	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R111	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R114	1-249-428-11	CARBON	8.2K	5%	1/4W	
R115	1-249-428-11	CARBON	8.2K	5%	1/4W	
R116	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R117	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R118	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R119	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R120	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R121	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R124	1-216-224-00	METAL GLAZE	12K	5%	1/8W	
R149	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R201	1-247-863-00	CARBON	22K	5%	1/4W	
R206	1-216-077-00	METAL CHIP	15K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R207	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R208	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R209	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R210	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R211	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R213	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R214	1-249-428-11	CARBON	8.2K	5%	1/4W	
R215	1-249-428-11	CARBON	8.2K	5%	1/4W	
R216	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R218	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R219	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R220	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R223	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R224	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R301	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R302	1-249-441-11	CARBON	100K	5%	1/4W	
R303-306	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R307	1-249-421-11	CARBON	2.2K	5%	1/4W	
R308	1-249-421-11	CARBON	2.2K	5%	1/4W	
R309	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R310	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R311	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R312	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R313	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R314	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R315	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R318	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R319	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R320	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R321	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R322	1-249-429-11	CARBON	10K	5%	1/4W	
R324	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R326	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R327	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R328	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R329	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R330	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	
R331	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	
R332	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R333	1-247-807-11	CARBON	100	5%	1/4W	
R334	1-249-441-11	CARBON	100K	5%	1/4W	
R335	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R336	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R337	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R340	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R341	1-216-025-00	METAL GLAZE	100	5%	1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R342	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R343	1-216-085-00	METAL CHIP	33K	5%	1/10W
R344	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R345	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R346	1-249-421-11	CARBON	2.2K	5%	1/4W
R347	1-216-073-00	METAL CHIP	10K	5%	1/10W
R349	1-249-417-11	CARBON	1K	5%	1/4W
R350	1-216-025-00	METAL GLAZE	100	5%	1/10W
R351	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R352	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R401	1-216-081-00	METAL CHIP	22K	5%	1/10W
R402	1-216-079-00	METAL CHIP	18K	5%	1/10W
R403	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R404	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R405	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R406	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R407	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R408-411					
	1-216-001-00	METAL CHIP	10	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R414	1-216-113-00	METAL CHIP	470K	5%	1/10W
R501	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R502	1-249-385-11	CARBON	2.2	5%	1/6W
R503	1-249-385-11	CARBON	2.2	5%	1/6W
R504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R507	1-216-174-00	METAL GLAZE	100	5%	1/8W
R801	1-216-073-00	METAL CHIP	10K	5%	1/10W
R802	1-216-073-00	METAL CHIP	10K	5%	1/10W
R803-806					
	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R807	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R808	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R809	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R810-815					
	1-249-385-11	CARBON	2.2	5%	1/6W
		< VARIABLE RESISTOR >			
RV101	1-238-597-11	RES, ADJ, CARBON 1K			
RV201	1-238-597-11	RES, ADJ, CARBON 1K			
		< SWITCH >			
S302	1-571-426-11	SWITCH, SLIDE (POWER SELECT)			
S303	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU1	A-3282-012-A	TUNER UNIT (TUX-006(E))			

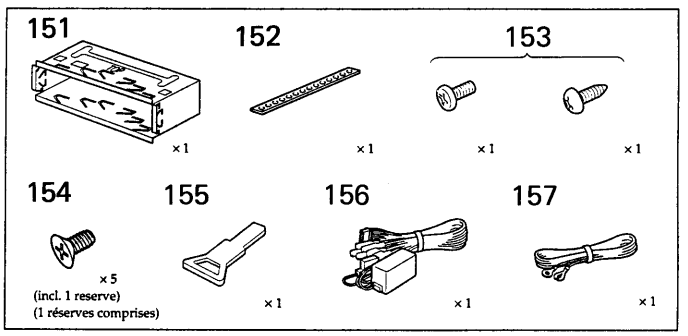
Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X1	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)	
X301	1-567-821-11	VIBRATOR, CRYSTAL (4.19MHz)	
		MISCELLANEOUS	
14	1-765-081-11	CORD (WITH CONNECTOR)	
130	1-765-460-12	CORD (WITH CONNECTOR)	
F901	1-533-326-11	FUSE (BLADE TYPE) (AUTO FUSE) (3A)	
F902	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) (15A)	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3368-684-1	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M902	X-3368-685-1	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	
		ACCESSORIES & PACKING MATERIALS	
	3-810-309-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-810-309-21	MANUAL, INSTRUCTION (FRENCH) (Canadian)	
	3-810-310-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	
	X-3367-795-1	CASE ASSY	

HARDWARE LIST

#1	7-621-770-67	SCREW +P 2.6X6
#2	7-621-770-XX	SCREW +B 2.6X8
#3	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT
#4	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3
#5	7-628-253-00	SCREW +PS 2X4
#6	7-624-104-04	STOP RING 2.0, TYPE -E
#7	7-621-772-10	SCREW +B 2X4
#8	7-621-773-95	SCREW +PTT 2.6X6 (S)

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description	Remark
		MOUNTING HARDWARE	
		**********	
* 151	3-916-161-01	FRAME, FITTING	
152	3-914-406-01	SUPPORT (ND), FITTING	
153	X-3368-725-1	SCREW ASSY, FITTING	
154	3-916-830-01	SCREW (5X8) (TP), +K	
155	3-388-078-01	KEY	
156	1-765-018-11	CORD (WITH CONNECTOR)	
157	1-775-543-11	CORD, GROUND	



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XR-C400

SONY

US Model
Canadian Model

SERVICE MANUAL

CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

Page	INCORRECT				CORRECT		
47	Ref. No.	Part No.	Description	Remark	Part No.	Description	Remark
	156	1-765-018-11	CORD (WITH CONNECTOR)		1-765-081-11 ☛	CORD (WITH CONNECTOR)	

(RPC-96018)

9-923-492-91

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